**Wildfires and Rogue Users:** Paul Glen says the same human intransigence that endangers lives in California wildfires also gives IT managers ulcers. PAGE 44

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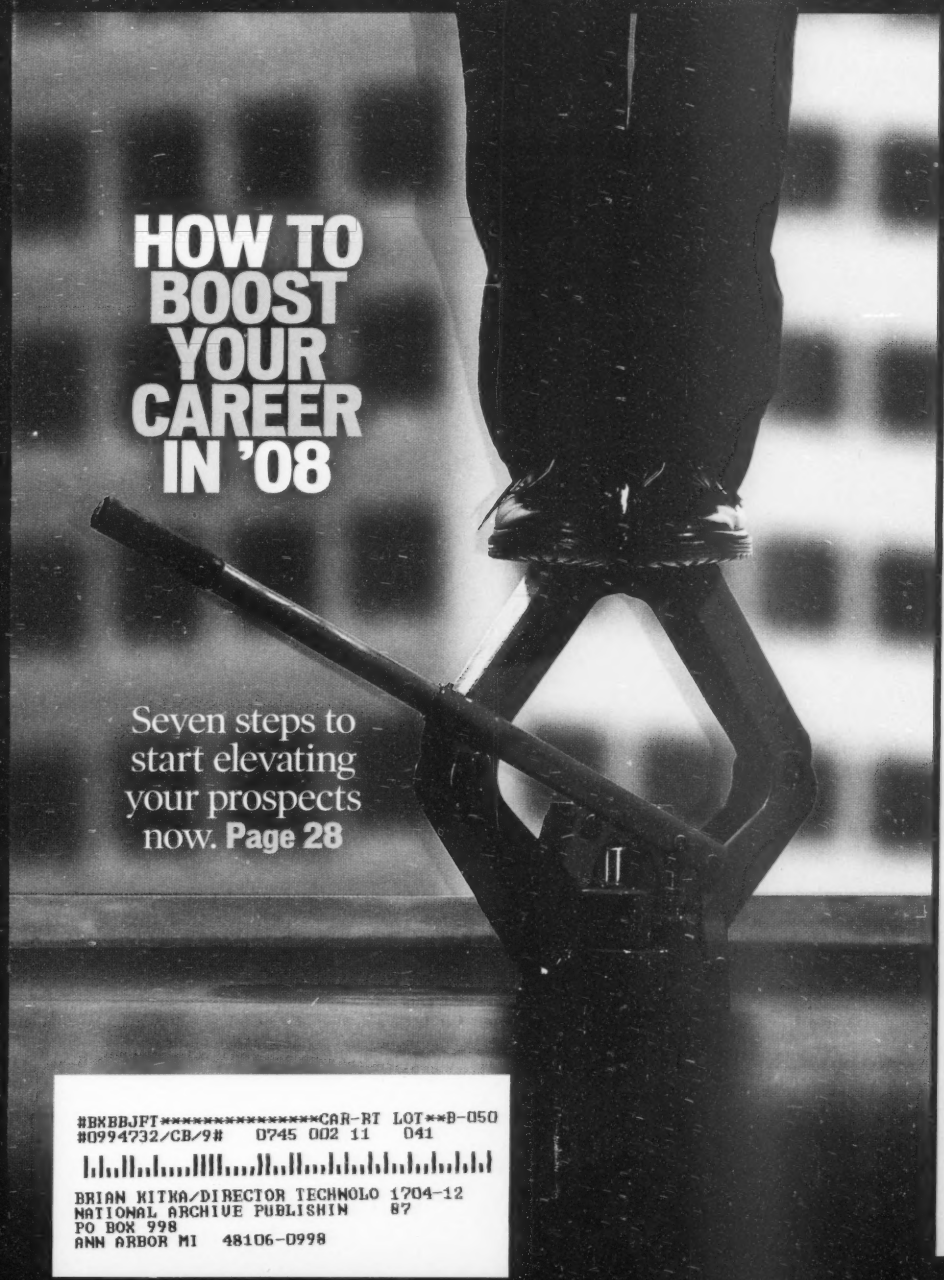

## HOW TO BOOST YOUR CAREER IN '08

Seven steps to start elevating your prospects now. **Page 28**

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**NOVEMBER 5, 2007**
VOL. 41, NO. 45 $5/COPY

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# The Highly R

VOLUME 1 – ISSUE 5

Windows Server 2003

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## SWISS SEES RELIABILITY SOAR WITH WINDOWS SERVER, CHECKS RED HAT AT GATE

*Tom Nagy for The Highly Reliable Times*

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Microsoft

# eliable Times

www.microsoft.com/reliable

special edition

## *Global Airline's Migration Yields 99.95% Reliability*

By MICHAEL BETTENDORF

ZURICH, Switzerland–Swiss International Air Lines (swiss), Switzerland's national airline, serves 70 destinations around the world with 6,500 employees in 105 branch offices. Today, 14% of swiss's total ticket sales are processed through its online flight booking system at Swiss.com, with volume increasing by 30% per year. 24x7 operations are critical for this site because of its importance to the airline's business, but the original Red Hat Linux–based booking system was not meeting swiss's requirements. So the airline began its search for a more reliable platform.

Reliability also drives market perception in the airline industry, according to swiss CIO Frank Meyer. "In our business, having a plane in the maintenance hangar is not good for our image. It is the same for our online service—people expect it to be up and running," says Meyer.

After an intensive evaluation, Meyer and his team chose Windows Server® 2003 and .NET. Since migrating the online booking system to Windows Server, swiss has seen reliability rise to 99.95%. In addition, while the previous Red Hat Linux–based system could only handle 250 concurrent users, the new system can now handle significantly more traffic than that. Meyer is confident about the effect of these changes: "Moving uptime to 99.95% while increasing performance to handle a greater number of users enables our team to easily handle the 30% growth we are seeing in our online sales."

For the full swiss story, plus other case studies and independent research findings on the reliability of Windows Server versus Linux, visit the Web site at microsoft.com/reliable

## STUDY: Side effects of reliability can include smiling, calmness

A study released today shows significant mood improvement in IT executives such as swiss's Frank Meyer (above) when they experience Windows Server reliability.

***"Windows Server has given us the reliability to grow our online services and differentiate ourselves from the competition. With Linux, we didn't get the reliability or flexibility we needed."***

*– Frank Meyer, CIO, SWISS*

**RELIABILITY ROUNDUP** Organizations using

**NEWSPAPER AWARDS** *The Highly Reliable* [illegible] took home nine gold medals at the 152nd

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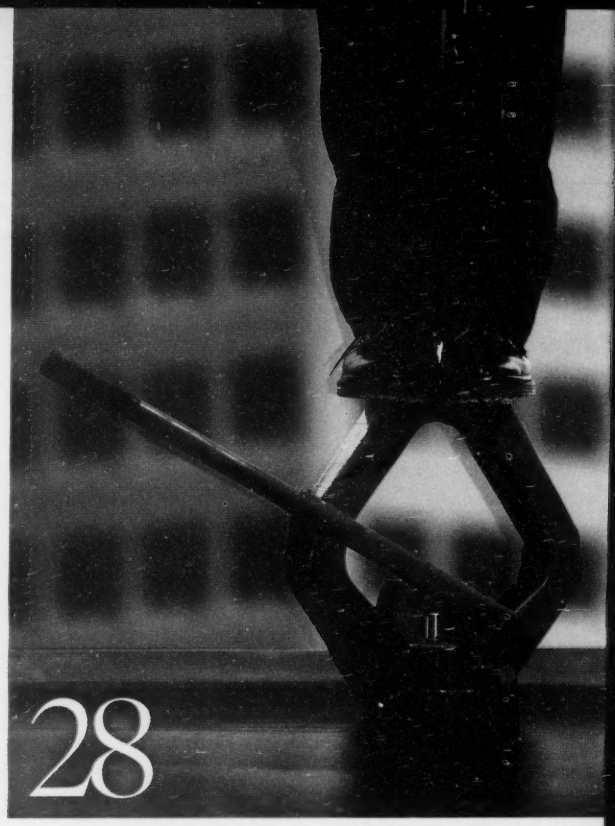


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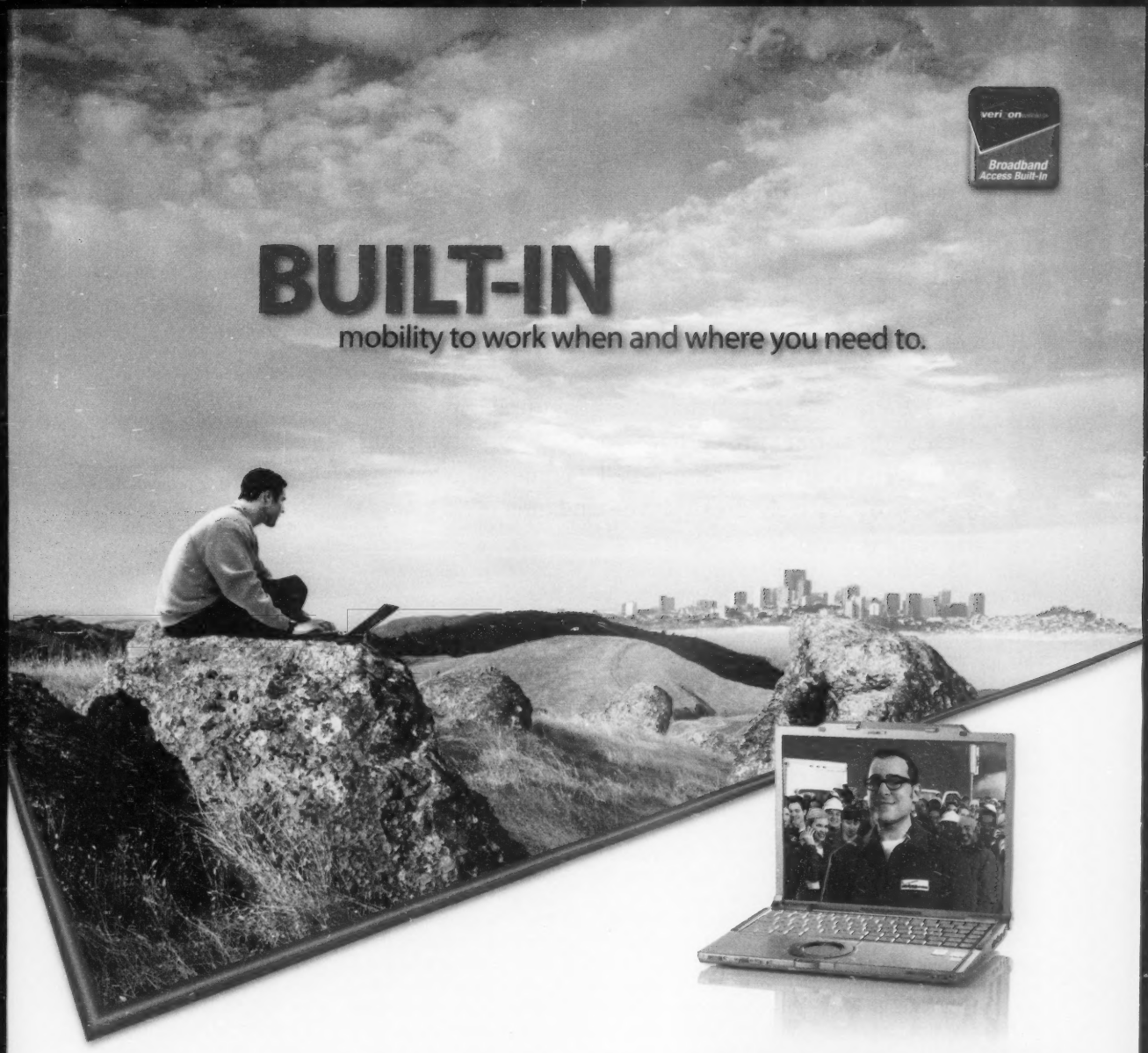
COVER PHOTOGRAPH BY STEPHEN WEBSTER

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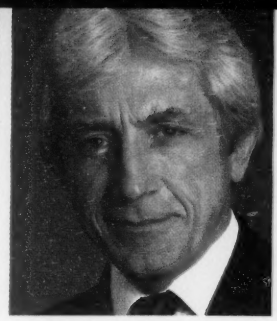
■ EDITOR'S NOTE

Don Tennant

# Using Women



IF YOU attended the Gartner Symposium/ITXpo 2007 in Orlando last month, perhaps you saw something that you haven't seen at a high-profile IT conference for a while: provocatively dressed women being used to attract attention to a vendor's booth.

There was a time when this sort of thing wasn't uncommon at all. Most of us can well remember the old Comdex days, when scantily clad women were a mainstay on the show floor. I've been to countless IT conferences and trade shows since then, however, and I was under the impression that the embarrassing practice had mercifully died when Comdex faded away.

So it came as a surprise to me when I learned what happened at the opening reception of the Gartner event. One of the exhibitors, Vanco, a U.K.-based network service provider, set up a display with a boxing theme, complete with a half-scale boxing ring that featured two inappropriately attired women. Michael Piddock, Vanco's group marketing manager, described the women as "ring girls" who were there "to create the complete boxing experience."

It's difficult to fathom how neither Gartner nor Vanco could foresee that the presence of these women at an IT function might be offensive to many of the attendees. How could something like this happen at an event that was planned and executed by Gartner, one of the most highly respected names in the IT industry?

According to a Gartner spokeswoman, the company has "strict guidelines for each sponsor/exhibitor, and they all know and agree to the rules before coming to our events." Those rules, she said, "were not followed in this case."

According to Piddock, Vanco used an Orlando-based events agency to deliver the boxing setup, and he relied on the agency to provide "what would be appropriate for a U.S. market." Piddock noted that "Vanco worked with its Gartner contacts continuously prior to the event to ensure they were aware of the setup, including information as to why the girls were there and how they were dressed."

**■ Couldn't Gartner and Vanco foresee that the presence of scantily clad women might be offensive?**

In any case, once the event was under way and everyone could see exactly how the two women were dressed, "it was clear that while the theme was a success, the girls looked out of place," Piddock said. Representatives from Vanco and Gartner discussed the matter, and Vanco arranged for the women to be dressed more conservatively for the remainder of the conference.

Still, it's puzzling that the outrageousness went as far as it did, Vanco's reliance on a third-party events organizer notwithstanding. A female IT leader who was at the event found Piddock's explanation unacceptable.

"They seem pleased with the success of their marketing event," she said — despite the fact that, as Piddock had put it, "the girls looked out of place."

"It was more than 'out of place,' " she said. "I would have expected Vanco to understand from the outset that the attire was completely inappropriate to the women IT leaders — and purchasers — at the conference."

Kristen Lamoreaux, founder of SIM Women, an affiliate of the Society for Information Management, agreed.

"It's disappointing that any marketing professional would consider having 'ring girls' appropriate for a CIO forum," she said. "A boxing theme is perfectly acceptable, but the use of women as eye candy . . . is unacceptable."

Lamoreaux faulted Gartner as well.

"As hosts of the event, Gartner should have checked each vendor team upon arrival for dress code compliance," she said. "If Gartner did approve the vendor theme and the inclusion of 'ring girls,' they, too, demonstrated a tremendous lack of sensitivity to their female attendees."

Lamoreaux is right. And I'll tell you what else is disturbing: Gartner's Symposium/ITXpo drew over 6,000 attendees, but the spokeswoman said the firm received only three complaints about the "ring girls."

We're talking about women being used. There should have been more of a backlash. There should have been more outrage. And given the demographics of the IT profession, it should have come from more men than women. ■

**Don Tennant** *is editorial director of* Computerworld *and* InfoWorld. *Contact him at don_tennant@computerworld.com.*

## So Long to E-mail

I agree with Mark Hall that the writing is on the wall for internal installations of messaging software ["History Revisited," Oct. 8]. But the challenge isn't technical; it's our own petrified attitudes that keep us from moving to hosted solutions.

I'm happy to move server-based overhead outside our building and let the experts manage what they're experts in. We want to strip away all the barnacles so we can keep trim and focused on what we are good at, although "we" might just mean Hall and me at the moment.

■ **Mark Holt,** *IT services manager, Richmond, Va.*

## Take This Job And Love It

The subject of Don Tennant's Oct. 8 Editor's Note, "Job Acquiescence," is a testament to how blessed we are to make a living in this industry and this country. Others are just trying to survive and pay the mortgage, but we in IT are reflecting upon whether we are *really* fulfilled.

Some people who don't like their jobs might see IT as a way to contribute to an overall mission. I love the space program, but I am not the person you want on console at Mission Control. Still, I'm good at listening and finding ways to make the systems work better for the people who sit on console, write the software, plan the missions and do all the other things my company does. I don't think I am unique. If you work in IT at UPS, Microsoft, Wal-Mart or Google, you know your company is doing something special, and you get to contribute via your tech skills — and that rocks.

■ **Andy Mann,** *Houston*

I can't help putting Tennant's advice on job acquiescence in the context of a "Dilbert" cartoon. Imagine Dilbert telling his pointy-haired boss that he is only pretending to like his job and would really rather be a hairdresser. His boss would, I am sure, assist him in his ambitions by a) piling more work on him, or b) guiding him to the exit. How many bosses are like that? Tennant's advice could be dangerous, especially in these days of H-1Bs and outsourcing to Bangladesh.

■ **Dan Clarke,** *Reno, Nev.*

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# News Digest

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## THE WEEK AHEAD

**MONDAY:** Microsoft's DevConnections 2007 conference gets under way in Las Vegas.

**MONDAY:** Sun plans to report its first-quarter results.

**WEDNESDAY:** SIIA OnDemand, a software-as-a-service event organized by the Software & Information Industry Association, opens in San Jose. Also, the Wall Street Technology Association holds a seminar in New York on designing financial application architectures.

CORBIS

DATA CENTERS

# Intel Chips Away at Data Center Costs

An IT manager at Intel Corp. says that the chip maker wants to run its data centers "like an Intel factory," a strategy that includes a plan to consolidate 133 existing IT facilities into eight data center hubs.

The consolidation moves may result in cost savings of as much as $1.8 billion over the next seven years, according to Brently Davis, manager of Intel's data center efficiency initiative.

Davis outlined Intel's data center strategy last week in a short blog posting and an accompanying video in which he responded to questions asked by someone who was off-camera.

"Like most other companies these days, Intel is facing a growing demand for computing resources," Davis wrote in his posting. "As a result, our computing costs are going up along with that demand. All of these issues prompted us to take a hard look at our data center strategy to see where we could make it more efficient."

As part of the consolidation effort, Intel wants to increasingly move to servers with multicore processors, Davis said in the video. The company now has about 93,000 servers — more than one for each employee. And many are based on single-core processors, he said.

Intel also plans to adopt server virtualization software more widely. Davis said the consolidation work is expected to take seven years, although he added that the company hopes to accelerate the process and finish by 2010 or 2011.

Data center consolidation has become a mainstream trend at companies, including major IT vendors. For instance, Hewlett-Packard Co. has been consolidating 85 worldwide data centers into six facilities, all in the U.S., under a plan announced two years ago.

Jonathan Eunice, an analyst at Illuminata Inc., said that companies can get dramatic savings through data center consolidation, which typically also involves consolidating applications and other software programs to ensure that different systems are running the same product versions.

In addition, consolidation gives IT departments a chance to move off of older systems to "a more modern foundation," Eunice said.

*— Patrick Thibodeau*

## Wachovia Looks To Map Out Its Data Centers

Wachovia Corp. is working to create 3-D maps of its data centers, a project that company officials hope will enable them to run visualizations of IT assets and predict the business impact of local power outages and other scenarios.

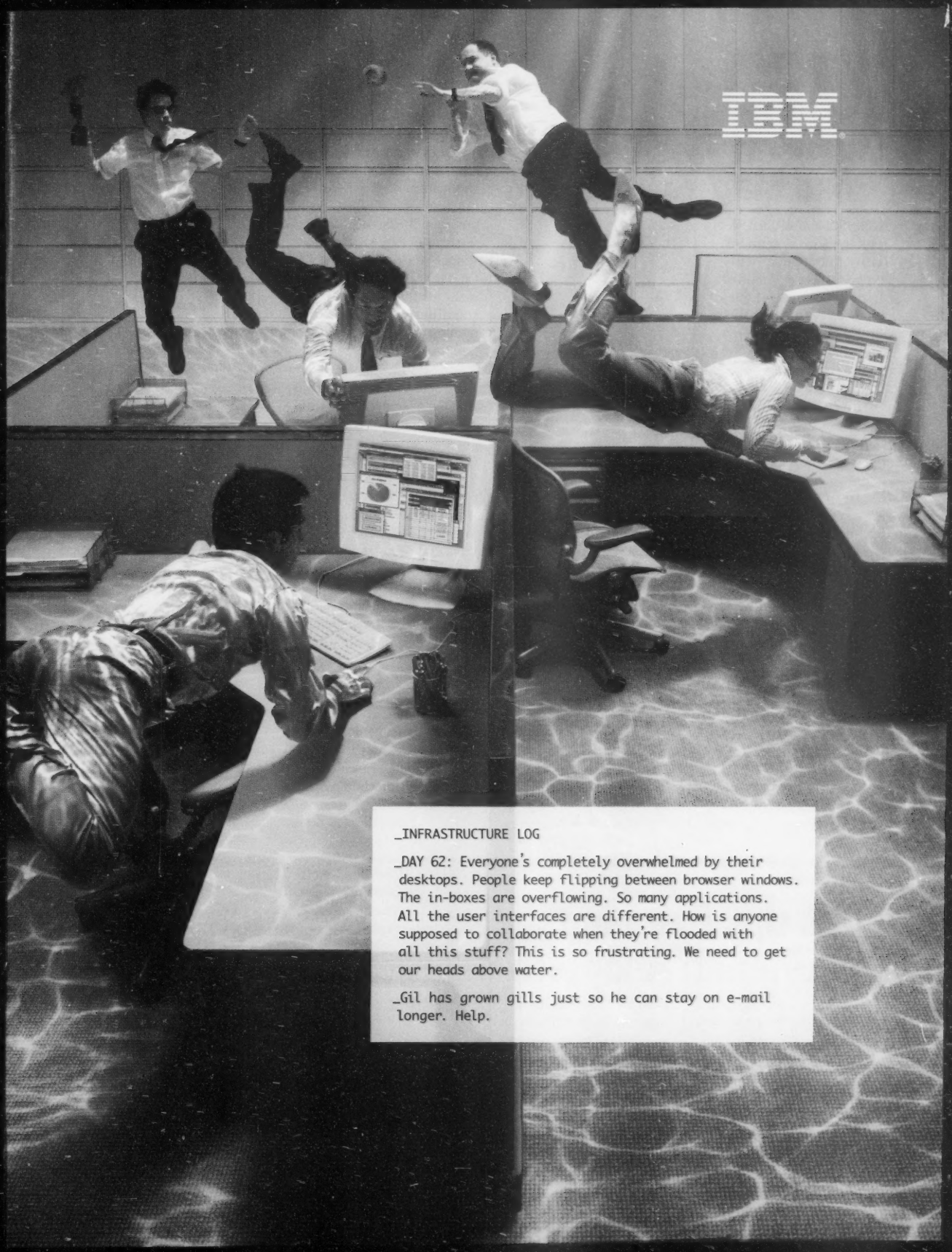
The effort has been under way for about eight months, said Jacob Hall, vice president of Wachovia's platform design and data center technology products group.

To generate the 3-D models, the financial services firm is using geospatial data and teaming up with two software vendors and the visualization center at the University of North Carolina at Charlotte. Currently, Wachovia is rendering models down to the level of individual servers in buildings, Hall said. Given enough data, it eventually could generate even more detailed models, he added.

Wachovia also hopes that the 3-D models will help it run a greener IT department. "This gives us the facts to go out and rearchitect our systems," Hall said.

– CHRIS KANARACUS, IDG NEWS SERVICE

> **"[Real-time modeling data] would create too much traffic. I think static snapshots are good enough."**
> **JACOB HALL,** VP, WACHOVIA




_INFRASTRUCTURE LOG

_DAY 62: Everyone's completely overwhelmed by their desktops. People keep flipping between browser windows. The in-boxes are overflowing. So many applications. All the user interfaces are different. How is anyone supposed to collaborate when they're flooded with all this stuff? This is so frustrating. We need to get our heads above water.

_Gil has grown gills just so he can stay on e-mail longer. Help.

SOFTWARE

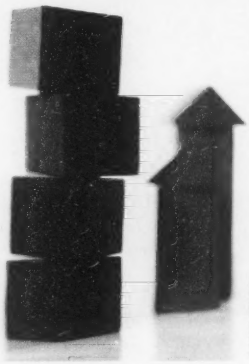
# Microsoft Ties Oslo 'Road Map' to Modeling

**MICROSOFT CORP.** last week took the wraps off an initiative that it hopes will expand the use of model-driven design techniques and ease the process of developing composite applications within a service-oriented architecture (SOA).

The company described the initiative, code-named Oslo, as its software development "vision" and "road map." Oslo was unveiled at Microsoft's SOA and Business Process Conference in Redmond, Wash.

Steven Martin, director of product management in Microsoft's connected-systems division, described Oslo as "an effort to unify pieces of the application platform and take model-driven development mainstream. Models need to not just replicate the application; they need to be the application."

He noted that the initiative aims to dramatically improve on current modeling techniques, which only



GETTY IMAGES

provide a limited view of models at different points in the development life cycle. "It only describes what the application might have looked like at one point in time. [It is] never up to date — not holistic," Martin said.

To that end, he said that as part of Oslo, Microsoft plans to upgrade and integrate the metadata repositories in the next versions of its System Center management software, Visual Studio development tools and BizTalk business process management offerings. The integrated repositories could be used for managing, versioning and deploying models of composite applications, Martin said.

Microsoft said the Oslo project will also lead to new features in BizTalk Server, Visual Studio, System Center and the .Net Framework. Beta versions of tools containing Oslo-initiated updates will be available in 2008, Martin said.

Massimo Pezzini, an analyst at Gartner Inc., said that Oslo is part of a Microsoft effort to catch up to Oracle Corp., BEA Systems Inc. and IBM in critical SOA-required components such as workflow technologies, business process management tools, and registries and repositories.

Still, Microsoft is raising the bar by creating an integrated metadata repository for the entire life cycle of a model-driven application, he added.

Nonetheless, Pezzini predicted that Microsoft is still 12 to 24 months away from delivering technologies borne from the Oslo project, which he called "more a vision than a concrete deliverable."

*— Heather Havenstein*

## Short Takes

**Cisco Systems Inc.** and Indian outsourcer **Wipro Ltd.** have agreed to jointly create a services program for corporate users in India, the Middle East and Africa. Cisco also launched a joint venture with Wipro rival **Satyam Computer Services Ltd.** to develop health care applications.

**Iron Mountain Inc.** has agreed to purchase e-discovery services provider **Stratify Inc.** for $158 million in cash. Stratify will become a division of Iron Mountain Digital.

## TO OUR READERS

**Scot Finnie** was named *Computerworld*'s editor in chief last week. Finnie, formerly online editorial director, will manage a newly integrated team that is responsible for the editorial content on *Computerworld.com* and in the weekly print publication. **Don Tennant**, who had been editor in chief, was promoted to editorial director of *Computerworld* and its sister publication *InfoWorld*. As part of his new job, Tennant will be *Computerworld*'s primary external voice; he also will blog extensively and continue to write his weekly Editor's Note.

E-HEALTH

# HHS Ups Payments To E-health Adopters

**THE U.S. Department of Health and Human Services last week unveiled a new five-year initiative that will provide higher Medicare reimbursements to physicians who use electronic health records (EHR).**

**The agency said the increased reimbursements should offset the cost of implementing EHR software and of training and support programs. Those costs have been cited by small and midsize practices as the primary reasons for not adopting EHRs.**

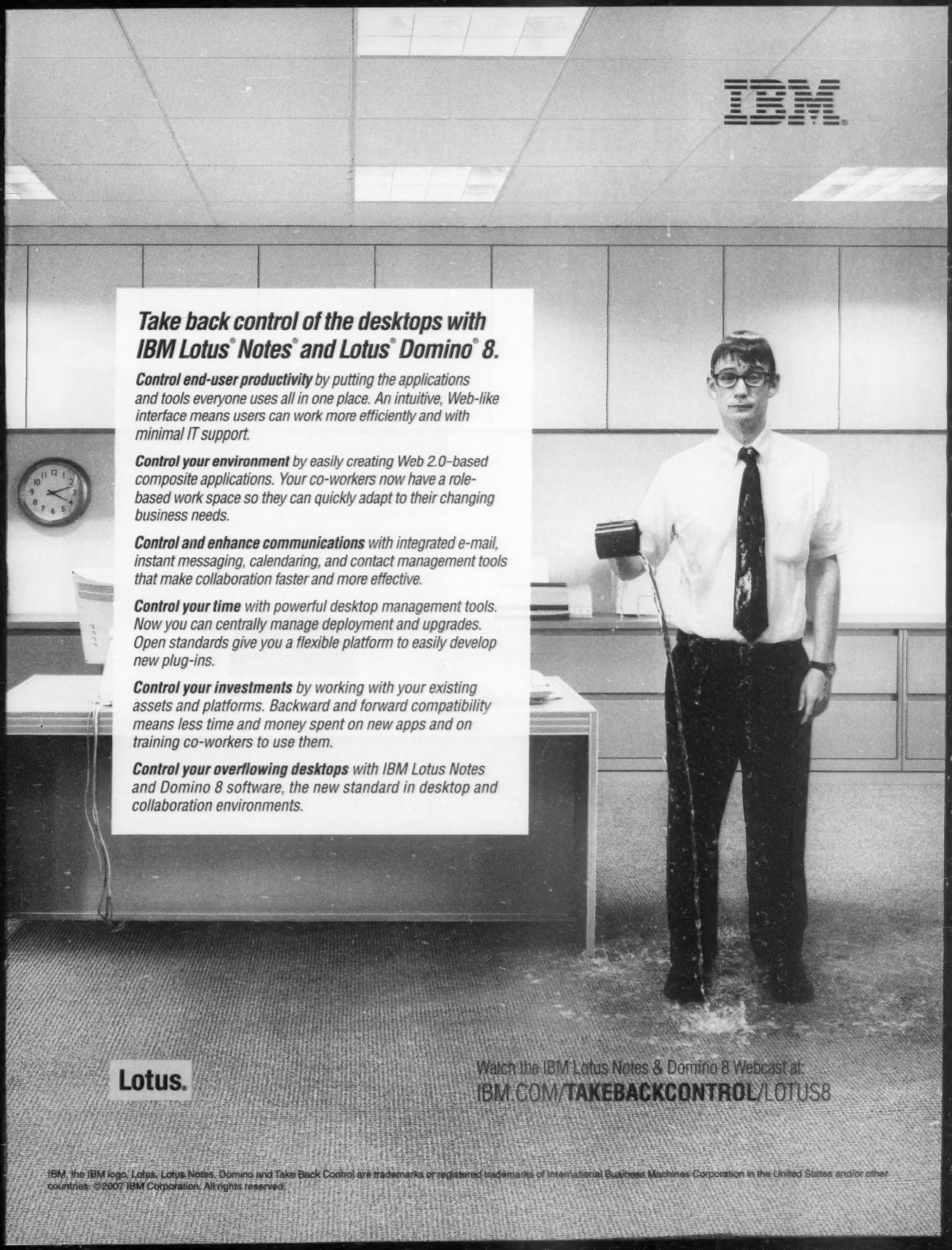
**Last week, HHS Secretary Michael Leavitt said the agency's Centers for Medicare & Medicaid Services will begin the program next spring, targeting 1,200 practices that have three to five physicians that serve a total of 3.6 million patients.**

> **This is not just about getting computers in every doctor's office. This is about creating an interoperable system to connect providers.**
>
> MIKE LEAVITT, U.S. SECRETARY OF HEALTH AND HUMAN SERVICES

**During the first year of the program, practices that use certified EHRs will be given higher reimbursements, Leavitt said. In the second year, payments will increase for physicians who use the software to compare their performance against national standards for care. The rate will increase further in the third year for practices that improve quality of care, according to Leavitt.**

**"We want to learn and indeed to get better at paying for value and not just volume," he said.**

**– HEATHER HAVENSTEIN**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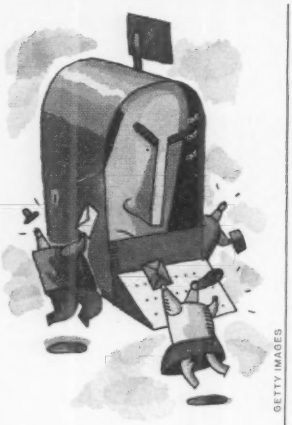
PRIVACY

# Feds' E-mail Snafu Exposes Addresses Of Whistle-blowers




**THE HOUSE** Committee on the Judiciary last week apologized to would-be government whistle-blowers for accidentally exposing their e-mail addresses to other individuals who, like them, had used a committee Web site to secretly submit tips about alleged abuses at the U.S. Department of Justice.

The snafu occurred when a clerical employee accidentally included the addresses of all the whistle-blowers in the "To" field of a message that was sent to inform them of changes in the panel's policy on who could access their information.

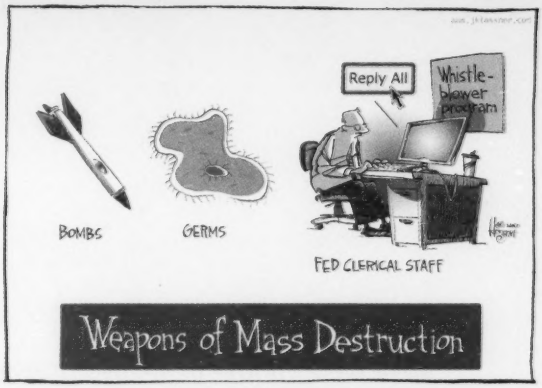
Many of the more than 150 e-mail addresses in the distribution list included portions of the names of the whistle-blowers. Also on the list was the public e-mail address of Vice President Dick Cheney, according to a statement released by the Judiciary Committee.

The Web site tip line was set up in June to give DOJ employees a way to confidentially provide the Judiciary Committee with information that could aid its ongoing investigation of the alleged politicization of the agency.

A posting on TPM Media LLC's TPMmuckraker blog called the gaffe a "whoops with a capital W." The blogger, who claimed to have been forwarded copies of the e-mail, wrote that the original message was followed by another one recalling it a few hours later. But the recall notice also had all of the addresses exposed in the "To" field, he said.

*— Jaikumar Vijayan*

**BETWEEN THE LINES** *By John Klossner*




## BENCHMARKS LAST WEEK

**Dell Inc.** restated its financial results from fiscal 2003 through the first quarter of its 2007 fiscal year, bringing the hardware vendor back into compliance with the Nasdaq Stock Market's listing requirements.

**President Bush** signed into law a bill that extends the moratorium on Internet taxes for seven more years. The ban had been due to expire last Thursday.

**ONE YEAR AGO:** Microsoft Corp. agreed not to sue Novell Inc.'s Linux users over patent issues in return for a share of Novell's open-source revenue.

# Global Dispatches

## Cisco Set to Invest $16B in China

**BEIJING – Cisco Systems Inc. plans to invest $16 billion to boost its presence in China over the next few years, CEO John Chambers said in a speech here last week.**

**The company's latest round of spending in China will begin this week with a $17.5 million investment in Alibaba Group as part of the Hangzhou-based e-commerce firm's initial public offering in Hong Kong.**

**Chambers also noted that Cisco and Alibaba have agreed to jointly develop technology for small and midsize businesses in China and elsewhere.**

**Cisco aims to double its manufacturing capabilities in the country and invest $350 million in start-up ventures there, Chambers said.**

**In addition, the company will spend $6 million to equip 300 new Networking Academies in partnership with China's Ministry of Education.**

**Steven Schwankert,**
*IDG News Service*

## African Officials Endorse Cable Plan

**JOHANNESBURG, SOUTH AFRICA – African IT ministers have endorsed a $2 billion undersea cable project of the New Partnership for Africa's Development (Nepad).**

**The cable will run around Africa's east and west coasts and extend to India, the Middle East, the U.K. and the U.S., according to Henry Chassia, deputy chairman of the agency's e-Africa Commission, based here. Most African countries support the Nepad economic partnership.**

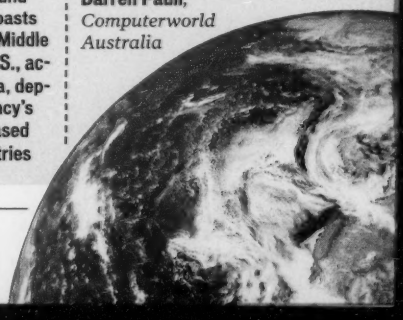
**The new cable will have landing points in all African coastal and island countries, said Ngabo Nankonde, a spokesman for the Communications Authority of Zambia.**

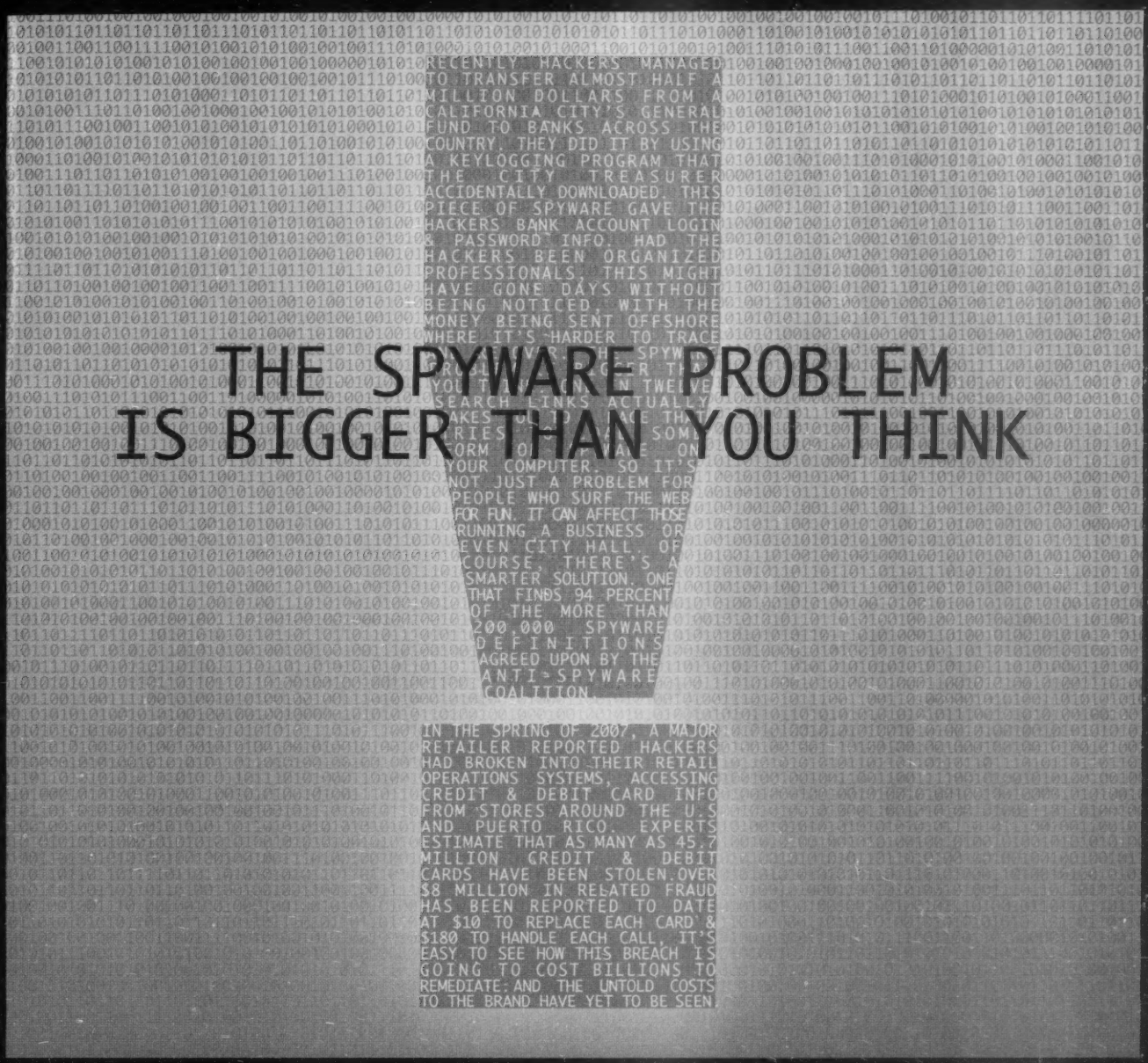
**Michael Malakata,**
*IDG News Service*

**BRIEFLY NOTED**

**The Australian Department of Defense has poached a senior officer from the Australian Tax Department, Second Commissioner Greg Farr, to fill its chief information officer position, which has been vacant for more than six months.**

**Darren Pauli,**
*Computerworld Australia*




RECENTLY HACKERS MANAGED TO TRANSFER ALMOST HALF A MILLION DOLLARS FROM A CALIFORNIA CITY'S GENERAL FUND TO BANKS ACROSS THE COUNTRY. THEY DID IT BY USING A KEYLOGGING PROGRAM THAT THE CITY TREASURER ACCIDENTALLY DOWNLOADED. THIS PIECE OF SPYWARE GAVE THE HACKERS BANK ACCOUNT LOGIN & PASSWORD INFO. HAD THE HACKERS BEEN ORGANIZED PROFESSIONALS, THIS MIGHT HAVE GONE DAYS WITHOUT BEING NOTICED, WITH THE MONEY BEING SENT OFFSHORE WHERE IT'S HARDER TO TRACE
THE SPYWARE PROBLEM IS BIGGER THAN YOU THINK
SEARCH LINKS ACTUALLY
YOUR COMPUTER. SO IT'S NOT JUST A PROBLEM FOR PEOPLE WHO SURF THE WEB FOR FUN. IT CAN AFFECT THOSE RUNNING A BUSINESS OR EVEN CITY HALL. OF COURSE, THERE'S A SMARTER SOLUTION. ONE THAT FINDS 94 PERCENT OF THE MORE THAN 200,000 SPYWARE DEFINITIONS AGREED UPON BY THE ANTI-SPYWARE COALITION.
IN THE SPRING OF 2007, A MAJOR RETAILER REPORTED HACKERS HAD BROKEN INTO THEIR RETAIL OPERATIONS SYSTEMS, ACCESSING CREDIT & DEBIT CARD INFO FROM STORES AROUND THE U.S AND PUERTO RICO. EXPERTS ESTIMATE THAT AS MANY AS 45.7 MILLION CREDIT & DEBIT CARDS HAVE BEEN STOLEN. OVER $8 MILLION IN RELATED FRAUD HAS BEEN REPORTED TO DATE AT $10 TO REPLACE EACH CARD & $180 TO HANDLE EACH CALL, IT'S EASY TO SEE HOW THIS BREACH IS GOING TO COST BILLIONS TO REMEDIATE. AND THE UNTOLD COSTS TO THE BRAND HAVE YET TO BE SEEN.

## There is a better way to **protect your company** from spyware.

Spyware is more insidious and costly than viruses, because most of it goes undetected. One Fortune 100 retailer recently found 6900 undetected spyware programs, 586 Trojans and 21 keyloggers despite running freeware plus protection from a leading antivirus provider. You see, most antivirus providers toss in some average spyware protection (about 56% effective) with their product, and claim it's safe. Only Webroot® AntiSpyware Corporate Edition could find and remove the critical malware for this retailer.

Webroot security software is the standard by which all other anti-malware products are measured, because it includes industry-leading antispyware and antivirus protection. That's why SC Magazine awarded Webroot enterprise software Best Anti-Malware Solution of 2007. Call Webroot today at **1.866.865.3293** for a 30-day risk-free trial. Or visit **www.webroot.com/cw** to learn more.

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DAVID CLARK

# Microsoft Set To Renew IT Storage Push

## Corporate users are split on whether the upgrade meets their needs. By Brian Fonseca

AS MICROSOFT CORP. readies the launch of a second version of its Data Protection Manager storage technology, users disagree on whether it will boost the vendor's position among corporate storage administrators.

Microsoft is set to announce the general availability of DPM 2007 during its TechEd IT Forum next week in Barcelona, Spain.

DPM 2007, a component of Microsoft's System Center family of management products, provides disk-to-disk-to-tape backup and recovery in Microsoft environments. The new version has been in a beta-test phase since mid-2006.

Frank Mulligan, a systems engineer at Raymond James Financial Inc., said the updated DPM software still isn't the best fit even for his business, which leans heavily on Microsoft's infrastructure software.

"I don't think it's quite there yet as a fit in our environment," Mulligan remarked. "It didn't seem to be [strong enough to] qualify as a final solution."

The company's IT environment is "well over 95%" Windows-based, with 1,050 Windows-based servers, 50 to 60 Unix- and Sun Solaris-based servers, and a massive Microsoft SQL Server database, Mulligan said.

Microsoft recently demonstrated DPM 2007 to IT officials at the St. Petersburg, Fla.-based financial services firm, looking to convince them that it could replace the backup technology from CommVault Inc. that Raymond James has used for the past five years, he said.

However, the demonstration only served to convince Mulligan that the new version of the backup software is still not mature enough for large companies.

For example, he said that upgrades to tape backup features still fail to meet the requirements of a large company. "Where it seemed to fall short is if you're not backing up to disk. The recovery didn't look robust," said Mulligan.

In addition, he said, "the interface wasn't quite there and seemed not to be centrally managed."

The storage systems now in use at Raymond James include a Symmetrix DMX-3000 array, a Clariion CX700 array for network storage and a Clariion disk library, all from EMC Corp., along with the CommVault software.

Mulligan said the company stores 600TB of data in multiple databases and backs up 80TB to 90TB of data per week to a virtual tape library and tape.

Ironically, he said that the CommVault software's ability early on to offer backup agents for SQL Server and Exchange helped it take root at the Raymond James.

CommVault's software enabled the company's IT department to complete backups 25% faster and perform data recoveries 75% faster than the software it replaced, according to Raymond James officials. It also allowed the company's branch offices to back up information centrally, eliminating the need for remote tape drive backups, Mulligan said.

Because of the dominance of Microsoft software at Raymond James, IT officials will continue to monitor the progress of the DPM offering, he noted.

### MARKET CHALLENGES

Lauren Whitehouse, an analyst at Milford, Mass.-based Enterprise Strategy Group Inc. (ESG), noted that even if the DPM software does meet the needs of large companies, Microsoft will have a difficult time persuading IT managers to use it.

"[Businesses have] too much invested, and they don't want the disruption that a new [backup] solution would bring," she said. "Mi-

*Continued on page 14*

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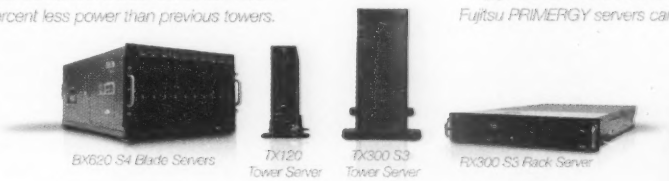

*BX620 S4 Blade Servers* *TX120 Tower Server* *TX300 S3 Tower Server* *RX300 S3 Rack Server*

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*Continued from page 12*

crosoft is not the first name one thinks of when it comes to backup."

About 35% of 398 IT professionals recently surveyed by ESG said they have employed the same backup software for more than four years, and another 12% said they have used their backup product for more than eight years, Whitehouse said.

The latest version of Microsoft's backup software could find success in the fledgling virtual server business because of its support for Microsoft Virtual Server, she said. Still, she noted, the software is likely to remain mostly a niche product until it offers support for non-Microsoft platforms and applications.

At the Storage Networking World conference last month in Dallas, Microsoft officials said that the new version adds support for Microsoft's Exchange messaging software, SQL Server database software and the SharePoint Portal Server collaboration technology.

## ROSY PREDICTIONS

In an interview at the conference, Ted Kummert, corporate vice president of Microsoft's data and storage platform division, said DPM 2007 is also able to perform continuous data-protection snapshots of Microsoft applications and file servers, which are integrated with tape and disk media.

Kummert said that future versions of DPM will interact with the software vendor's cache of data life-cycle management applications.

He cited two factors in his contention that Microsoft's nascent storage business has a bright future: the company's monstrous installed base, and the close working relationship among its development teams, which ensures that the products are tightly integrated.

Many corporations are already storing data "in our platform on various levels," he noted. "Yes, we do have some new products, but we feel like we've actually been in this game for a while."

David Lethe, president of diagnostic software vendor SANtools Inc. in Plano, Texas, said he was not impressed with the storage strategy Kummert described at the conference.

"[It was the] wrong audience — we can smell BS," said Lethe. "He didn't tell us anything. [DPM] is unified if it's a pure Microsoft environment."

Sara Windsor, senior network engineer for the Tracy, Calif., Unified School District, said her employer's plan to migrate to Exchange 2007 last year led to a decision to install a beta version of DPM 2007 last year, since there is native integration between the two products.

She said that both products are now in production and are working well. "I've had to do a number of mailbox recoveries, and it's worked like a champ — some of the easiest recoveries I've ever done," Windsor said.

In fact, she said support for Microsoft's SharePoint collaboration server in DPM 2007 is accelerating the school district's schedule for implementing SharePoint 2007. The district expects that implementation to be completed in two to four months, Windsor said.

"One of the factors driving us to SharePoint 2007 is the fact that DPM is designed to specifically work with [the application] and restore individual site collections," she explained.

The school district provides IT resources to 23 separate facilities, Windsor said. It runs mostly Microsoft Windows Server 2003-based software, including Exchange, SharePoint and SQL Server technology.

Windsor said that prior to installing DPM, the school district ran CommVault's Qinetix software and Symantec Corp.'s Veritas Backup Exec, each of which was managed by a different administrator.

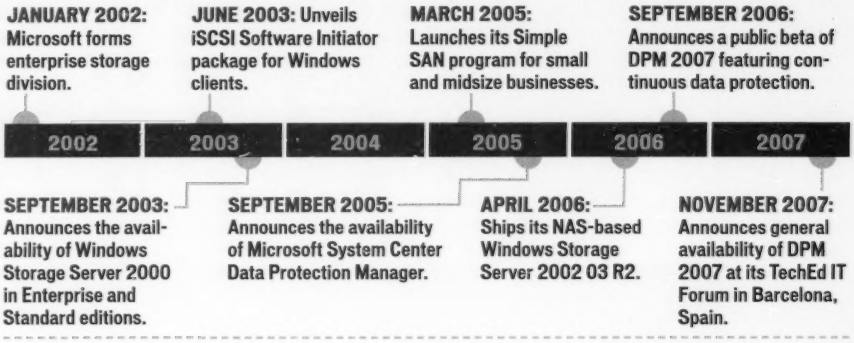
The district turned to DPM to cut costs, help consolidate backup products and simplify disaster recovery, she said. The CommVault product was quite expensive and "never worked gracefully" with SharePoint, Windsor said. "It was something that required a lot of care and feeding."

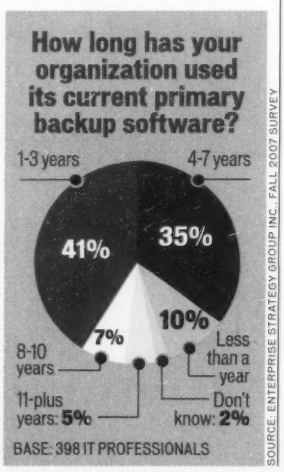
She also noted that Symantec's Backup Exec lacked the compression capabilities the district needed.

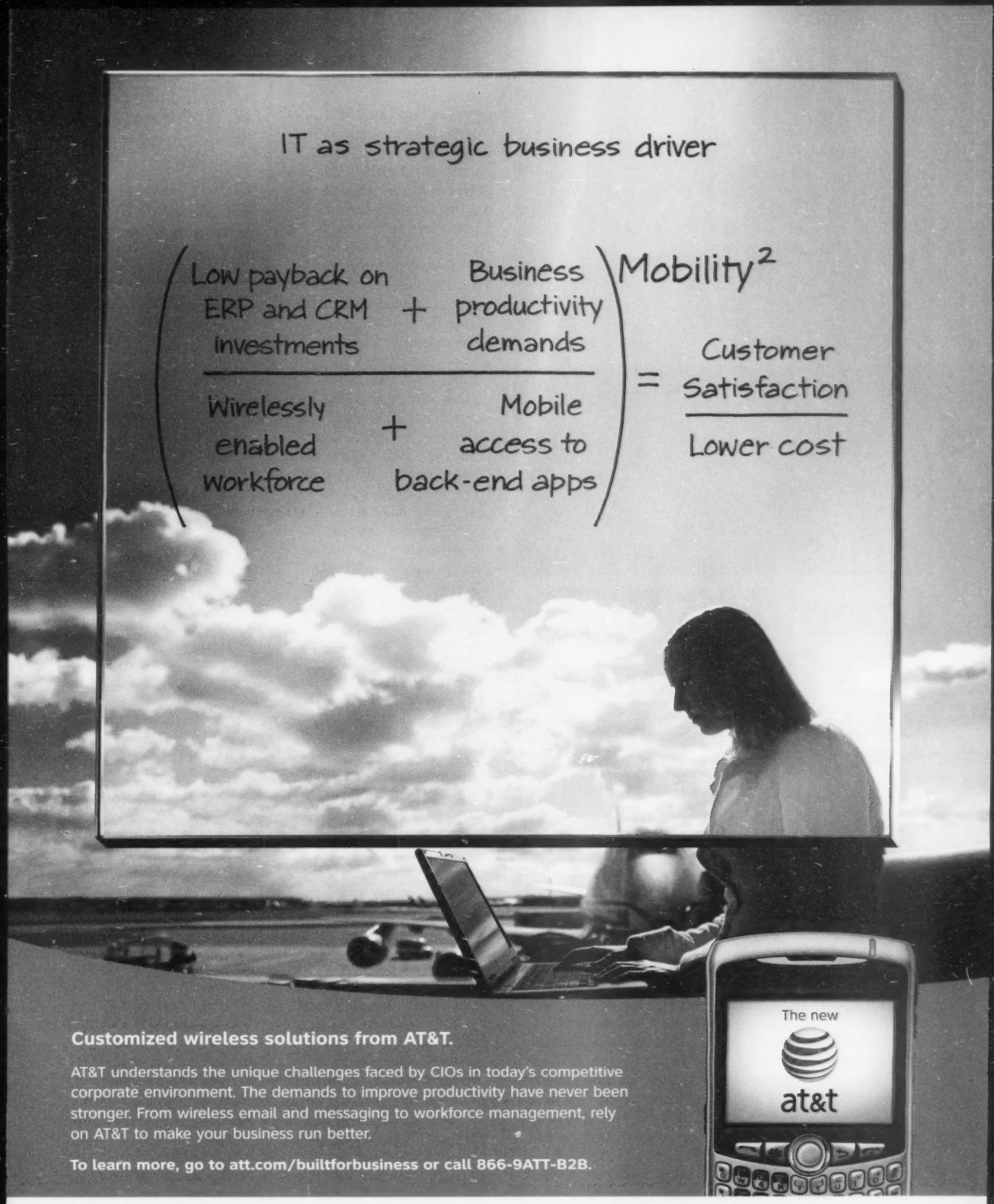
Since DPM was installed, the district has decreased the amount of file backup traffic across its WAN and shrunk backup times from 24 hours to just over three hours.

"We happen to be a Microsoft environment, so in my case, DPM works extremely well," said Windsor. "If I had an Oracle server or something, I have no idea how that would work." ■

**MICROSOFT'S STORAGE EFFORT: Despite having made several storage moves since 2002, Microsoft has yet to be called a major storage vendor.**


JANUARY 2002: Microsoft forms enterprise storage division.
JUNE 2003: Unveils iSCSI Software Initiator package for Windows clients.
MARCH 2005: Launches its Simple SAN program for small and midsize businesses.
SEPTEMBER 2006: Announces a public beta of DPM 2007 featuring continuous data protection.
2002
2003
2004
2005
2006
2007
SEPTEMBER 2003: Announces the availability of Windows Storage Server 2000 in Enterprise and Standard editions.
SEPTEMBER 2005: Announces the availability of Microsoft System Center Data Protection Manager.
APRIL 2006: Ships its NAS-based Windows Storage Server 2002 03 R2.
NOVEMBER 2007: Announces general availability of DPM 2007 at its TechEd IT Forum in Barcelona, Spain.

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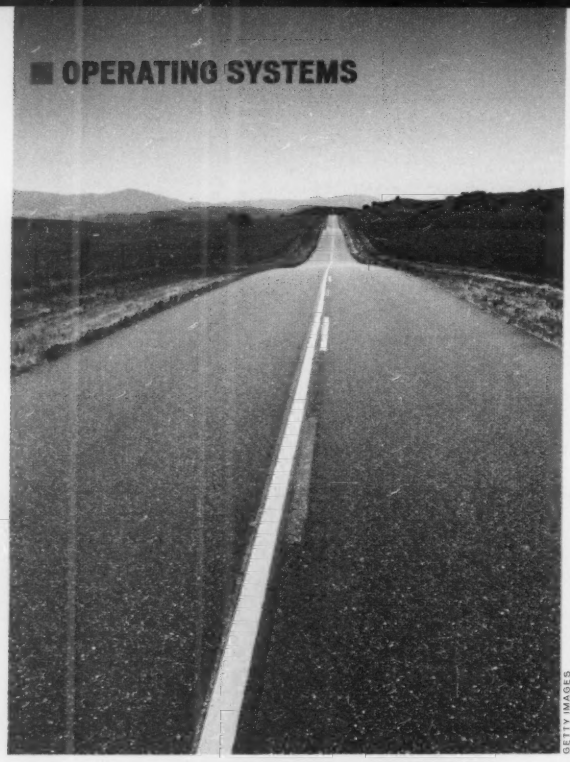


GETTY IMAGES

# OpenVMS Still Has Road Ahead Of It, HP Says

## The vendor calls the 30-year-old OS a 'key product.' But will software makers continue to support it? By Patrick Thibodeau

HEWLETT-PACKARD Co. is marking the 30th anniversary of the release of its OpenVMS operating system by telling users that the software still doesn't have an expiration date on it.

To deliver that message, HP has turned to some of its top executives, including Mark Hurd, the company's chairman, CEO and president. Hurd recorded a video that can be viewed on the OpenVMS 30th anniversary Web site. In the video, he says that the venerable operating system remains a "key product" and that HP "will continue to support it for the foreseeable future."

Also, during an Oct. 26 webcast for members of the Chicago-based Encompass user group, Martin Fink, senior vice president and general manager of HP's business-critical systems group, tried to assure users that software vendors will continue to develop products for OpenVMS.

HP is moving forward on development as well. It announced an updated version of OpenVMS to coincide with the anniversary, adding new Itanium processor support, tools for managing blade servers and other features. The company also said it plans to add support for the JBoss and MySQL open-source technologies in a release next year.

OpenVMS was introduced on Oct. 25, 1977, and initially was just called VMS. It was developed by Digital Equipment Corp., which later was acquired by Compaq Computer Corp., which in turn was purchased by HP in 2002.

The acquisitions made the OpenVMS user community nervous — as did HP's subsequent decision to end development and sales of its AlphaServer systems, the hardware line that was synonymous with OpenVMS.

HP, which stopped selling AlphaServers last April, is encouraging users to switch to its Itanium-based Integrity servers. But some users are worried that pulling the plug on the AlphaServer line sent a signal to independent software vendors that OpenVMS is just a poor second cousin to HP-UX, the company's version of Unix.

Charles Tollett, an OpenVMS systems administrator who asked that his company not be identified, said he's "waiting to see if the actions match the statements" made by Fink and Hurd. Tollett added that he wants HP to do more to keep software developers from giving up on OpenVMS.

"I'm not convinced that they are putting that message to the vendors strongly enough, and often enough, to get the vendors to buy into it," he said.

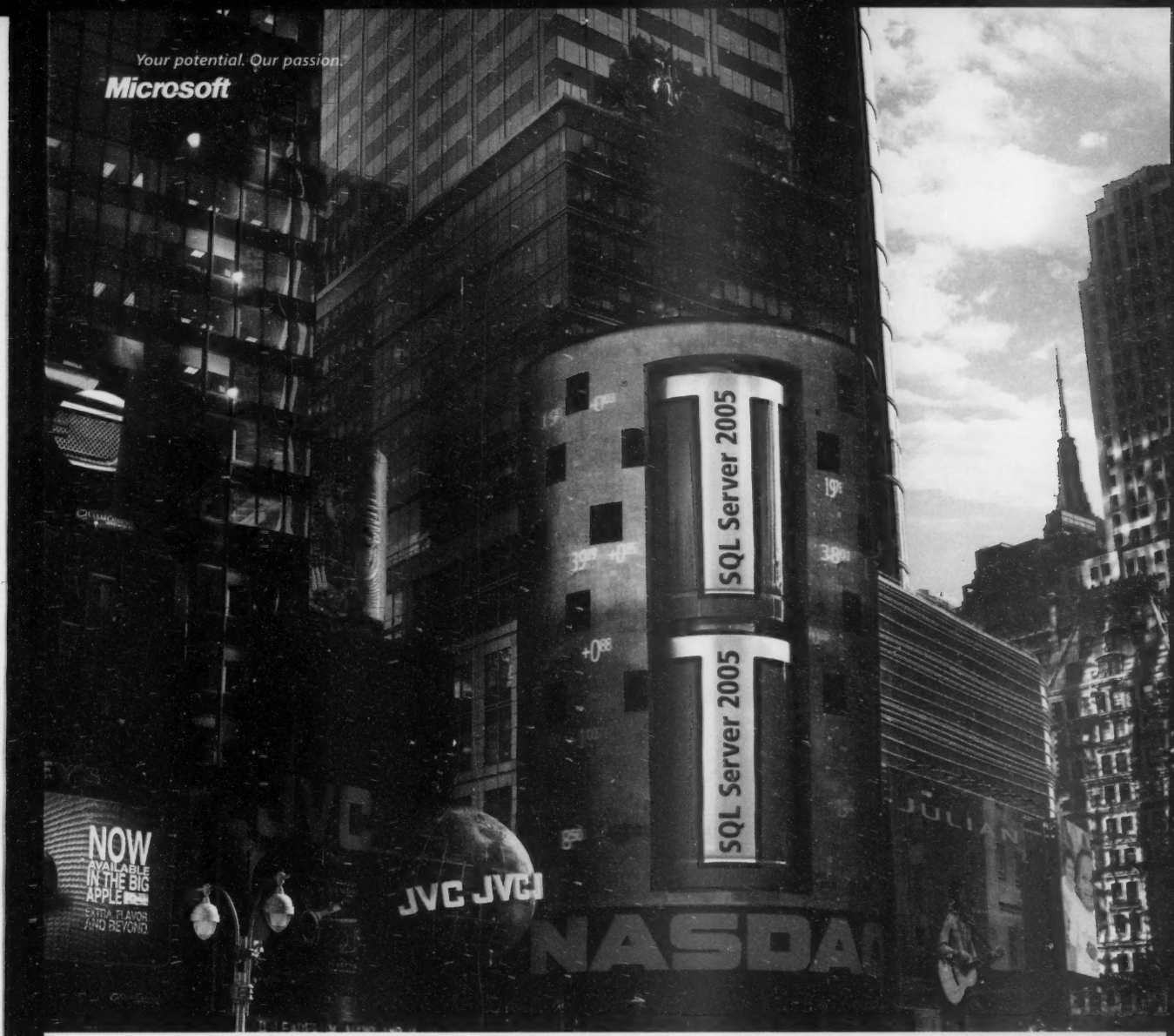
> **"I'm not convinced that they are putting that message to the vendors strongly enough, and often enough.**
>
> **CHARLES TOLLETT,** AN OPENVMS USER, ON HP'S EFFORTS TO PERSUADE SOFTWARE DEVELOPERS TO CONTINUE SUPPORTING THE OPERATING SYSTEM

Aaron Sakovich, a systems, network and security administrator at a financial software company that he asked not be named, said HP's effort to reach out to OpenVMS users indicates that "they are in it for the long haul, most definitely."

But, Sakovich said, the amount of resources that HP is committing to the operating system may not match what some users would like to see. In particular, HP's marketing plan remains a question mark, he said.

Ann McQuaid, general manager of HP's OpenVMS systems division, said 90% of the vendors that support OpenVMS have ported applications to the Integrity line. Altogether, some 1,200 applications from about 600 companies are available on Integrity systems, according to McQuaid, who said HP is also "seeing a lot of movement" to the Itanium-based machines by users.

Robert Gezelter, an OpenVMS consultant in Flushing, N.Y., said he has been very satisfied running OpenVMS on Integrity servers. The operating system has been highly stable and usable on that platform, Gezelter said, adding that moving to the Itanium-based hardware has lowered his OpenVMS operating costs. ■

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*Results not typical, and are based on use with Windows Server 2003 Enterprise Edition. Availability is dependent on many factors including hardware and software technologies, mission-critical operational processes, and professional services.

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MATTHEW FAULKNER

## Face Social Networks' Risks

STARTING THIS MONTH, Skype Ltd., the voice-over-IP division of eBay Inc., and MySpace, News Corp.'s popular social networking site, will begin a service that will let the 110 million MySpace members who have Skype accounts call one another with the click of a button in an online profile. That news raised a red flag for Don Montgomery, vice president of marketing at Akonix Systems Inc. in San Diego. He says IT has to be wary of young workers bringing social networking activities to the office. Why? Because Skype opens ports to the Internet with an encrypted data stream, so IT can't know what the traffic is. And it may not just contain idle chatter by bored kids in their first jobs. Montgomery points to various Skype-specific malware programs that do everything from stealing passwords to turning PCs into spam bots. He says it's vital for companies to develop and effectively communicate policies about technologies like Skype and "then enforce the policy with some measure of technology" — including Akonix's own security appliances, natch — that can identify and shut down things such as the Skype protocol.

Beware of the Skype-MySpace deal, warns Montgomery.

## KM Could KO Compliance

With the first baby boomers trundling off to retirement, companies are using knowledge management (KM) systems to capture their wisdom for the future generations of workers, says analyst Jim Murphy at AMR Research Inc. in Boston. That will help spur 16% growth in KM technology in 2008 compared with this year, he forecasts. One technology that companies are evaluating is internal social networking — in part, Murphy says, because younger workers expect to use it on the job. But compliance and privacy issues might arise as a result, he says. "Kids are not taught about compliance and privacy in school," he warns. They are "looser" with information than is considered good business practice and are apt to post information that ought not to be public to a social network, internal or external, Murphy notes. Perhaps discretion should be core to the wisdom that departing boomers bequeath.

**$85B**
Knowledge management's market size in 2008, AMR Research predicts.

## Oracle Users Embrace Open-Source Systems

At next week's gathering of Oracle aficionados at OpenWorld in San Francisco, Ari Kaplan, president of the Independent Oracle User Group in Chicago, will present some interesting data about open-source usage culled from the group's annual survey of its 21,000-plus members. He says one thing is certain: Open source continues to gather momentum among members. About 13% of the survey respondents said that in 2007, the "majority" of their companies' applications were running atop open-source tools such as Linux, Apache and JBoss, vs. 9% last year. However, while a vast majority of Oracle sites also ran apps that use open-source databases such as MySQL, Postgres and Oracle Express, Kaplan points out that "they're tiny by comparison." That is, 81% of those open-source databases were a puny 1GB to 50GB in size and mostly used in noncritical environments, whereas Oracle databases average between 500GB and 1TB and are vital to a company's business. Although Kaplan expects open source to continue to make inroads into Oracle sites, he doesn't foresee them displacing mission-critical Oracle deployments. "They're three to five years ahead of open source" in technology, Kaplan concludes. He cites Oracle 11g's ability to compress data within a database and its Database Vault and Audit Vault tools that support compliance initiatives. ■

**74%**
Oracle sites running MySQL, says 2007 IOUG survey.

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## Dossier

**Name: Darl McBride**

**Title: President and CEO**

**Organization: The SCO Group Inc.**

**Location: Lindon, Utah**

**Most recently read book: *Super Crunchers: Why Thinking-by-Numbers Is the New Way to Be Smart*, by Ian Ayres**

**What he'd do if he had a whole day all to himself: "I'd probably get an actual full-out race car and go out on a track and go racing."**

**First job: As a teen, he worked at a local cemetery mowing grass and burying the dead.**

**Most recently watched movie: *3:10 to Yuma*. (Favorite line: "I don't want no trouble; I just want my cows back.")**

**Childhood dream: Being quarterback for the Green Bay Packers. "That's still my dream, but it's fading rapidly."**

**Most interesting thing about having seven children, ages 7 to 24: Managing the "fairness factor. 'They got this; I got this.' "**

**Something most people don't know about him: "My oldest two sons, Austin and Brandon, are in a touring rock band called Kid Theodore. I get a real kick out of watching them."**

**THE GRILL**

# Darl McBride

## **SCO's beleaguered CEO** talks about how it feels to **take a pounding, plan a comeback** and be labeled **the 'most hated man in the industry.'**

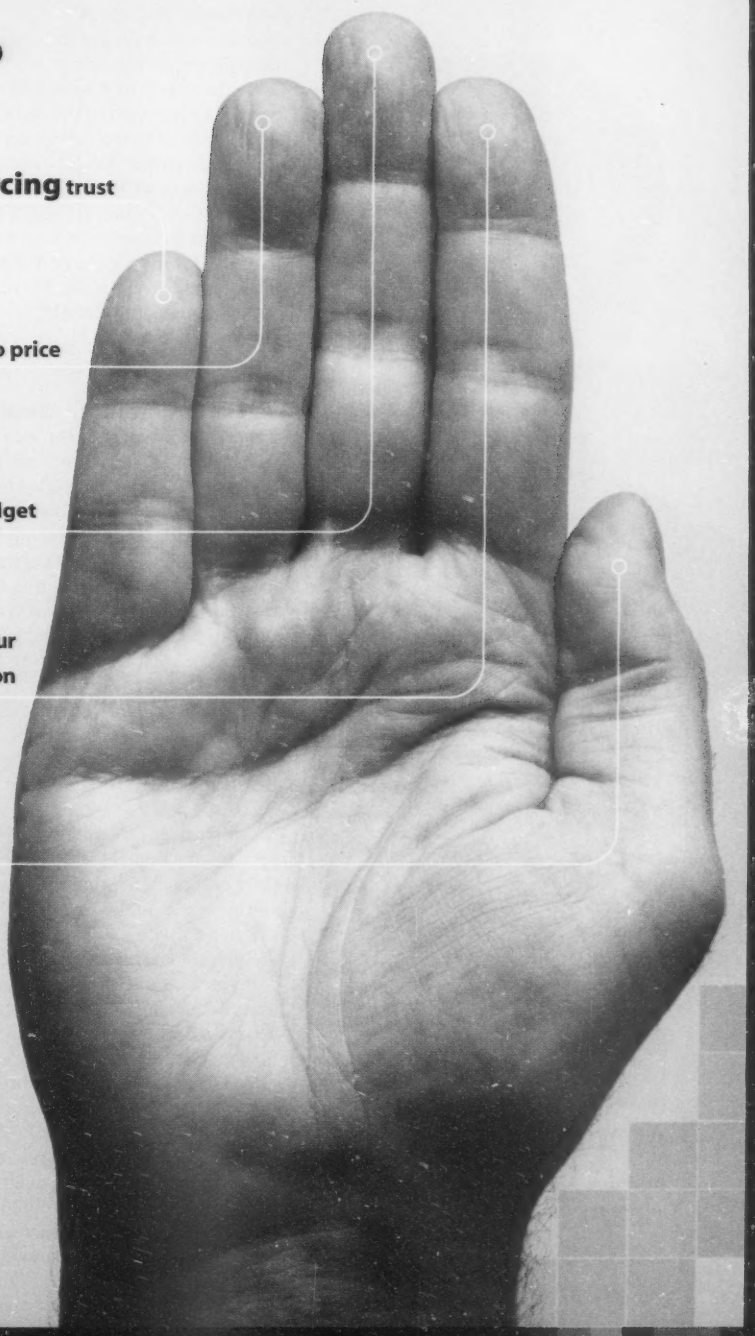
*Nine months after Darl McBride joined The SCO Group Inc. as president and CEO in June 2002, the company filed a $5 billion lawsuit against IBM, alleging that it improperly contributed some of SCO's Unix intellectual property for use in Linux. SCO also sued Novell Inc., charging that it had falsely claimed to own the legal rights to Unix, and SCO filed additional lawsuits against some large Linux users.*

*In August, SCO was handed a big defeat when a U.S. District Court judge ruled that Novell is the owner of the Unix and UnixWare copyrights. The judge also ruled that Novell could direct SCO to revoke its copyright infringement claims against IBM.*

**In light of the recent court rulings, are you prepared for the possibility that you actually could lose this whole legal fight?** We absolutely and fundamentally believe we are right in this case, and we believe in the justice system. But we also know that things don't always happen

*Continued on page 22*

# I Will...



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**"I don't tend to go out and pick fights on my own, but I also don't tend to back down from one when someone's coming after me.**

*Continued from page 20*

the way they're supposed to, and we're realistic about that point.

We don't believe that this latest ruling was a reflection of the facts that were involved in the case. And the way the system works, we get a chance to put up an appeal.

We just took a literal pounding. We got knocked down — there is no doubt about it. But it's not the end of the line of the legal battle. In fact, there are some very encouraging things that came out of even this ruling. And we will continue to fight on those fronts.

**Can SCO survive even if it ultimately loses in court?** I think it's one of the more exciting times for this company. There's a story my general counsel shared with me. It's like the boxer who has come out of the ring after getting all beaten up, and he comes over to his trainer and says, "The guy didn't touch me." And the trainer says, "Then you better keep your eye on the ref, because somebody's beating the living hell out of you."

I run a little bit of a risk of that metaphor coming into play here by saying how excited we are, because we truly are disappointed [by the court rulings].

**So, where does SCO go from here?** We have been focused for three years on Unix and on becoming the leading platform provider of mobile business solutions, and by 2010, we want to be the market leader in that space.

If you look at the market statistics, it's wild just how big the numbers can get, with 3.5 billion cell phone subscribers out there.

What we're looking at doing with this is to put together a platform and tool kit [that enables] people to develop or deploy applications in real-time environments on a mobile smart phone. That one business alone could be $70 billion to $80 billion a year. If we can get 20% of that market share, it would be big for SCO.

We've been planning for the moment of moving to SCO 2.0, and that moment is upon us. We were hoping that we were going to be moving with a big push behind us [from the court cases]. It ends up that we've hit a bit of rough water, and it's not going to be quite as simple as we thought it was going to be. But let's not be mistaken here: We have a very big opportunity to become the mobile flavor of Unix. That's what we want to be.

**With all that has happened so far, is there anything you would have done differently if you could replay the past five years at SCO?** It's hard to say in retrospect what you'd do differently. If you asked a football player after a game, "Would you have done anything differently?" he might say, "Yeah, I would have zigged when I zagged." I can say that at every point along the way, I have done what I thought was the right thing to do.

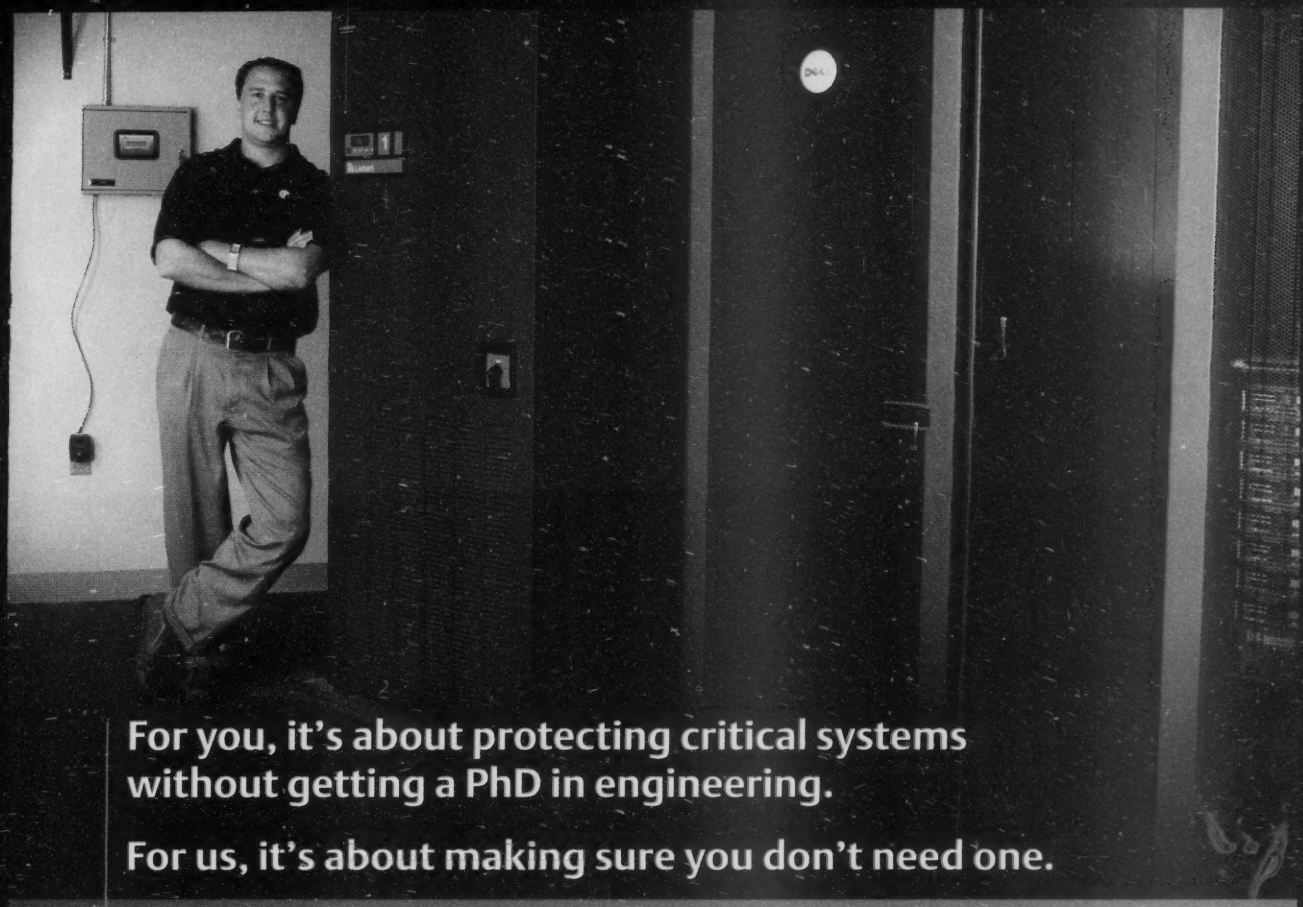
**SCO's financial results have been down, and you've been bashed in the media and by open-source advocates. Have any positive things come out of all of this?** Some people have gotten out. Those who stayed have gotten very tough. I'm very proud of the company and its employees for the work they've put in on the development project on mobility applications. The fact that none of it was on our plate when the lawsuits were filed speaks very highly to the type of employees we have.

**Since the lawsuits were filed, you personally have been criticized and ridiculed in various blogs and publications. How do you react to your critics?** It's a little bit of a strange twist to the story how I've become the most hated man in the industry. I think this thing has been overplayed just a tad. Part of the game plan of our opposition on this was to paint me in a light that was not favorable. They've obviously done a good job at that.

I don't tend to go out and pick fights on my own, but I also don't tend to back down from one when someone's coming after me.

We can really get this thing turned around. If you look where Apple was 10 years ago, they were on their back. They were just about down and out, and they came back. What brought them back into it was innovation, with really cool new products. That's the mantra we've had for a long time inside this company. The best form of revenge is success.

– *Interview by* **Todd R. Weiss**



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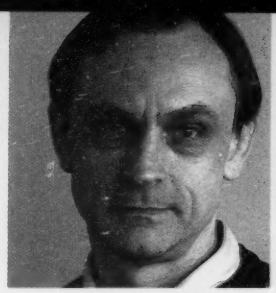
■ OPINION

Michael H. Hugos

# The Recovering Complexaholic



THERE'S A STANDING joke that business people never have to ask IT how long something will take and what it will cost because they already know the answers: It always takes a year and costs $1 million — and that's just for the simple stuff.

If you don't find that funny — and why would you? — then you are going to have to own up to the fact that we in IT are addicted to complexity. And our addiction to the complex, the expensive and the clunky is increasingly indulged at our own peril.

That's because business people have discovered that consumer IT is better than corporate IT. It has more features and is more responsive, easier to use, faster to install and a whole lot cheaper to operate. I'm talking about things like e-mail and Web hosting services from companies such as Yahoo and Google, and the low- or no-cost office productivity and workflow software that companies such as 37signals and IBM provide.

What is our objection to this stuff? That it's not scalable in the enterprise? That it's not robust? Or that it doesn't feed our addiction to complexity? I think it's the latter, and I think you need to stand up with me as I say, "Hello, my name is Mike, and I'm a recovering complexaholic. I'm interested in new ways to get things done."

Consider this scenario: You're the CIO at GlobalCorp, a rapidly growing company run by some whip-smart business guys with a knack for deal-making and spotting opportunities ahead of everyone else. They run operations in North America, Asia and Europe, and are expanding into Africa, Australia and South America. They move into new markets and new countries by buying companies and growing them. They exit markets by selling off business units in those areas.

The chief operating officer and the chief financial officer ask you to prepare a presentation for the CEO and board of directors on how IT can help streamline financial reporting and increase the visibility of operations around the world. Some big deals are pending, and they think IT can make a difference.

**■ Stand up and say, 'I'm a recovering complexaholic. I'm interested in new ways to get things done.'**

If you're still feeding your addiction to complexity, a little voice in your head says, "Wow, this isn't a simple project; it'll take more than a year and $1 million — maybe more like three years and $100 million." If you're a recovering complexaholic, that little voice says, "Geez, these guys are moving fast; they aren't willing to wait three years. What else can we do to meet their needs?"

If you're a complexity addict, you round up a group of the usual suspects and put them to work grinding out a long-range development plan. You set a go-live date that's three years off, and you figure that in the meantime everything will just continue to operate as it always has.

If you're recovering from this addiction, you bring together a small skunk-works team of business and IT people and tell them to cast off all preconceptions. You give them time frames to deliver usable systems to business people within 30 to 90 days. You tell them everything is on the table, including things that have more in common with consumer IT than corporate IT. Under your guidance, they develop a strategy that relies on a collection of readily available IT components such as Web portals, dashboards and alerts, instant messaging and e-mail, data warehouses, spreadsheets, software-as-a-service offerings, and small programs that can be quickly coded, tested and put into production.

I think it's clear which CIO is going to thrive in a company like GlobalCorp. But think about this: In today's global, hypercompetitive business environment, isn't the agility that GlobalCorp displays becoming the norm? ■

**Michael H. Hugos** *is a principal at the Center for Systems Innovation and a speaker. A member of the 2006* Computerworld *Premier 100 IT Leader class, his newest book is* The Greatest Innovation Since the Assembly Line *(Meghan-Kiffer Press, 2007). He can be reached at* www.MichaelHugos.com.

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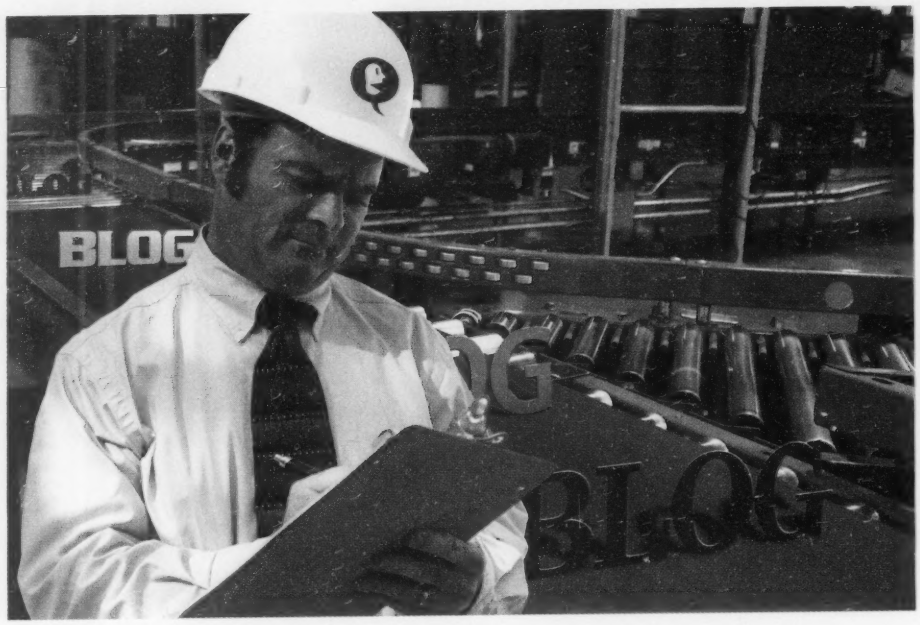


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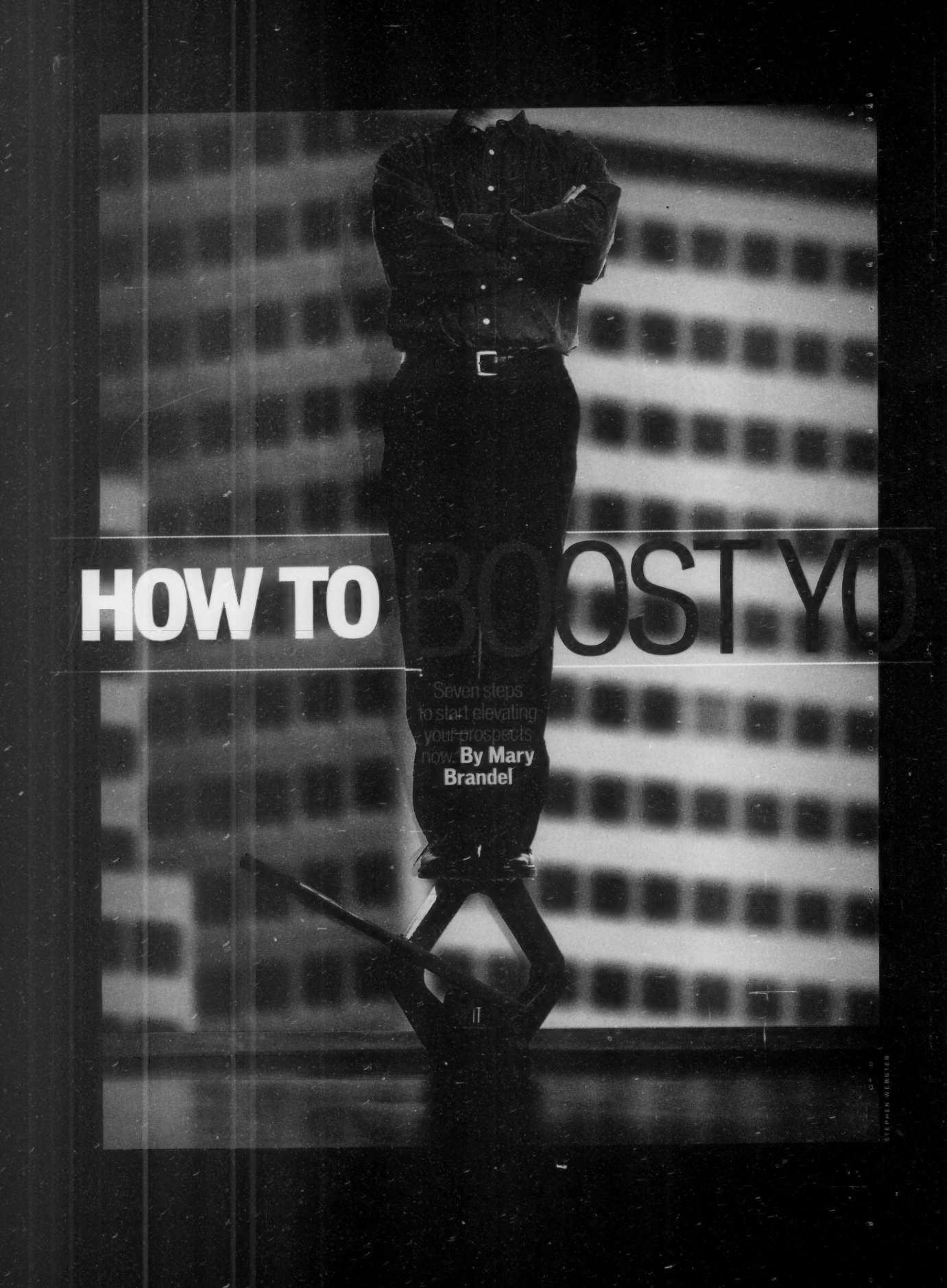

# HOW TO BOOST YO

Seven steps to start elevating your prospects now. By Mary Brandel

STEPHEN WEBSTER

DREAMING of ringing in the new year with a new job under your belt — either at your present company or with an entirely new employer? That might not be realistic; a successful career change takes time, sometimes lots of time. But if you want to make a move next year, the time to start laying the foundation is now.

Although certification and training can be wise investments, there are things you can do right now to improve your current job situation and position yourself for a change. All you need to get started is an investment of time, a good degree of motivation and (perhaps) a change of mind-set.

# UR CAREER IN '08

### 1. TALK TO YOUR MANAGER

Start with your boss. A frank heart-to-heart with your supervisor can alert him to potential that he hadn't noticed before. "Speaking up and telling your boss you're capable of something goes way beyond certification or training," says Grant Gordon, managing director at Overland Park, Kan.-based staffing firm Intronic Solutions Group LLC.

Ask your manager what you need to do to take the next step, Gordon says. "People like to keep their weaknesses well hidden, but I advise them to ask for more responsibility or find out why they're being overlooked," he says.

And, Gordon says, remember to "leave your own agenda aside and listen to how you can help [the company]."

### 2. BROADEN YOUR VIEW

Don't have tunnel vision, says Nancy Moran, vice president of staffing at CCN Inc., an IT recruiting firm in New York. To get ahead, learn more about the business you're in. "If you work in health care, you should learn about health care. If you work in finance, you should learn about hedge funds," she says. "If you know more about the business, you become that much more valuable."

To learn about your business, talk with the people who are using the stuff you build or support. You'll learn how the technology you create affects the business, says Sean Ebner, vice president of professional services at Spherion Corp., a recruiting firm in Fort Lauderdale, Fla. "A lot of developers look at the application they're building and they don't see it as a link in the broader chain," Ebner says.

Interact with colleagues from other departments whenever possible. That will increase your knowledge of the business while boosting your corporate visibility.

### 3. FIND A MENTOR – REALLY

You've heard it before: A mentor can be very, very good for your career.

Mentors can guide you to the next step. They can give you perspective on sticky subjects like whether your salary is on par with those of your peers or whether you're advancing as quickly as you should be. They can also help you practice talking to higher-ups.

To find a mentor, first check whether your company has a formal mentoring program. If it doesn't, join a professional organization like the Association for Computing Machinery (ACM), which supports MentorNet, a private, not-for-profit e-mentoring network for engineering and science professionals.

If none of those avenues pan out, don't be afraid to seek out a mentor on your own. "Most people are thrilled to help," says Elaine Weyuker, a fellow at AT&T Labs Inc. and chair of the Committee on Women in Computing at the ACM.

When approaching someone to be your mentor, describe your situation and exactly what you hope to get from the relationship, Weyuker says. For example, if you're new at the company, you could say, "I feel like I don't know the ropes, and I'd really value your help in getting acclimated," she suggests. If you're itching for advancement in a current job, try, "I feel I'm stuck at my current level, and I'd really value your help in figuring out the steps I should take to advance."

Flattery helps, too — as long it's sincere. Weyuker suggests saying something like, "I'd love to have someone in your position provide guidance and feedback to help me navigate through the early stages of my career."

Don't worry about imposing on a potential mentor. People *like* to mentor other people. "It makes them feel good about themselves, and they learn from the experience," Weyuker says.

### 4. SHOW OFF YOUR WRITING SKILLS

Hiring managers emphasize the need for better communication skills. Develop them by writing more — whether it's documentation or a blog.

# EMPLOYERS CAN'T RESIST

If you want a better job in 2008, one logical place to start is to compare your skills and expertise against the disciplines that will be most in demand. Here are some top picks from recruiters, curriculum developers, computer science professors and other industry observers.

**MACHINE LEARNING:** Skills in designing collaborative filtering, spam filtering and fraud-detection applications that seek patterns in jumbo-size data sets. Also data mining, statistical modeling and data structuring.

**MOBILIZING APPLICATIONS:** The ability to extend applications such as ERP, procurement and expense approval tools to devices such as BlackBerries and Treos.

**WIRELESS NETWORKING:** Skills in securing wireless transmissions over Wi-Fi, WiMax, Bluetooth and so on.

**HUMAN-COMPUTER INTERFACES:** The ability to design user interfaces for the Web or desktop applications.

**PROJECT MANAGEMENT:** Proven in-the-trenches experience and expertise.

**GENERAL NETWORKING:** A basic understanding of networking concepts and how applications use the network.

**NETWORK CONVERGENCE:** Knowledge of all sorts of networks – LANs, WANs, voice, the Internet – and how they converge.

**OPEN-SOURCE PROGRAMMING:** Operating system and application development knowledge. Experience in Linux, Apache, MySQL and PHP, collectively referred to as LAMP.

**BUSINESS INTELLIGENCE SYSTEMS:** Expertise in tools from companies like Cognos, Business Objects and Hyperion, and an understanding of how they apply to business.

**.NET, C #, C ++, JAVA – WITH AN EDGE:** Skills in a range of application frameworks and languages, including ASP.Net, VB.Net, XML, PHP, Java, C#, and C++, along with the ability to lead a team.

– MARY BRANDEL

"There's a subset of people who translate between the business and the IT department," Ebner says. "Practicing that kind of communication is the best way to hone those skills."

To evolve from writing code to writing business-friendly material, volunteer to be part of the design team and let your documentation writing skills shine. Make sure your grammar, spelling and formatting are of the highest quality, Ebner says.

Blogging is another way to sharpen your writing skills, says Allan Hoffman, technical jobs expert at Monster.com. It's also a great way to network. In the interest of career development, blog about an area that's of technical interest to you, not about your personal life. A programmer, for instance, might focus on AJAX and related technologies, while an information architect might follow Web 2.0 trends, Hoffman says. Most important: Write about something that you're passionate about. "If you're not enthusiastic about it, then don't bother," Hoffman says.

## 5. BROADEN YOUR CIRCLE

It's easy to sit in your cubicle, but getting ahead means taking action and demonstrating that you have an understanding of the business environment, says Hoffman. Get involved with an IT-related organization such as a local chapter of the ACM. Organize events, contribute to conferences or manage the local chapter's Web site. "You'll make contacts and improve your ability to work with others," Hoffman says. "It also demonstrates that you're enthusiastic and serious about [technology] as a career."

Or join an alumni network, a community group or a professional organization — any group in which you are likely to have face-to-face contact with senior managers from your company and others in a relaxed environment. "A personal conversation with key decision-makers outside of work breaks down the hierarchy," Ebner says.

## 6. WORK FOR FREE

Employers want experienced people, and one good way to gain experience is through volunteer work.

If your knee-jerk reaction to that suggestion is "I don't have the time," you might want to think again. Ebner recalls a person who volunteered to develop a Java program for the Make a Wish Foundation. "When her employer needed a Java person, she could present the applications she'd developed," he says.

Another idea is to contribute to an open-source project. Doing that shows your willingness to learn new things and gives you useful experience.

## 7. BECOME AN ENTREPRENEUR

The best thing you can start doing right now to improve your job situation is to become an entrepreneur, says Chad Fowler, author of *My Job Went to India: 52 Ways to Save Your Job* (Pragmatic Bookshelf, 2005). "Apply the spirit of entrepreneurship to every piece of work you do," he says.

In other words, take ownership of your work. Create value for your employer by discovering ideas that could change the business and then selling those ideas to your co-workers and managers. Show initiative and manage your own time and objectives instead of always waiting for someone to manage you. And try new things. "If you never fail, you never try anything that stretches your boundaries," Fowler says.

Say you're an IT professional working in a team creating customer service software for a large consumer products company, Fowler says. You notice that the service reps waste a significant amount of time on a certain type of support call. You could do some research and determine that adding some business logic into your team's software could save the client's call center time, resulting in real bottom-line savings.

You could work up a proof of concept on your lunch breaks, demonstrate the concept and its associated metrics to your manager, and ta-da! You could get the go-ahead to lead the development of a full implementation of the new feature. That's entrepreneurship.

However you decide to approach your career makeover for 2008, it's important to get started now. In the roiling waters of IT, even a small move now can result in a sea change later. ■

**Brandel** *is a* Computerworld *contributing writer in Newton, Mass. Contact her at marybrandel@verizon.net.*

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# In the Heartland

## These Best Places to Work in IT mix the best of **small-town America** and **big-time technology.** By Gary Anthes

FORBES MAGAZINE'S 2007 list of Best Places for Business and Careers includes six North Central U.S. cities in its top 50 — Des Moines and Cedar Rapids, Iowa; Lincoln and Omaha, Neb.; Springfield, Mo.; and Indianapolis.

But its list of the 50 best small places for business and careers includes 17 North Central cities. In fact, the top seven — Bismark and Fargo, N.D.; Sioux Falls and Rapid City, S.D.; Columbia, Mo.; Iowa City; and Bloomington, Ind., are in this part of the country.

Indeed, these small and midsize pockets of prosperity and possibilities might be the defining characteristic of the region. Other than Chicago and Detroit, the North Central U.S. doesn't have the sprawling metropolitan areas that have sprung up on the coasts, but neither does it have as much polluted air, traffic congestion and crime.

*Computerworld*'s 2007 Best Places to Work in IT list also spotlighted a high percentage of employers in the North Central U.S.; 34 of the top 100 companies have headquarters in that region. Here, we look at the current projects and job opportunities at three of these award-winning businesses.

### Cummins Inc.

**IT HEAD COUNT: 700 at Cummins and 1,300 at outsourcing firms**
**CIO: Gail Farnsley**
**CURRENT IT PROJECTS: Worldwide Oracle ERP rollout and system standardization**
**CURRENT IT OPENINGS: Project managers, business-oriented analysts, Oracle specialists**
**CROSS-DEPARTMENT MIGRATION ENCOURAGED:** Cummins has outsourced many of its lower-level and more technical IT jobs — such as programming, help desk and computer operations — to several companies, including its partner, KPIT Cummins Infosystems Ltd. in Pune, India. So while the company still hires some entry-level IT people right out of college, hiring managers there are more likely to be looking for more experienced workers.

In particular, the $11 billion maker of diesel engines and related systems seeks IT people with business experience. "It's really important that someone have strong business analysis skills in addition to technical skills," says Carrie Vawter, manager of engine business supply chain IT. "We need people to understand how a technology is going to solve a real-world business problem."

Nevertheless, some college graduates are hired as project managers or analysts, but they must be able to work effectively across several functional groups, says Vawter. In fact, she says, a key selling point for an IT job at Cummins is the ability to move out of IT and into an area such as marketing or finance.

Cummins is about six months into a three-year worldwide Oracle ERP rollout undertaken in partnership with IBM and KPIT Cummins. A key objective is to standardize as much as possible on key applications, says Jason Hammond, manager of IT strategy. The Oracle software will replace a number of older, homegrown systems.

The objective is to move to common processes, common applications — such as order management and purchasing — and common interfaces, Vawter says. Over the past 18 months, she says Cummins has been developing "functional IT strategies"

*Continued on page 34*

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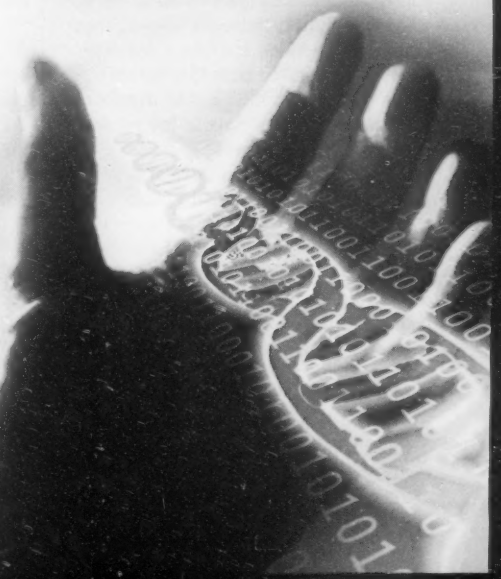

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*Continued from page 32*

that cross all business units. "For each strategy, typically there is a recommended application," says Vawter. For example, she says, inventory management is a subfunction within the manufacturing IT strategy, and Cummins uses Oracle's E-Business Suite for it.

While the ERP rollout addresses long-standing business processes, Cummins is also beginning to exploit fundamental new capabilities such as social networking, blogging and wikis — "Web 2.0 stuff," Hammond says.

Cummins employees speak highly of the company's ethical business behavior and its sense of social responsibility. "We are very involved in the community and in diversity-related activities," says Lorrie Meyer, executive director of human resources. "Our core values are not just words on paper for us; we make business decisions based on them. We choose where we will sell product, for example, and maybe walk away from an opportunity based on them."

"We offer domestic partner benefits, and we are passionate about that," says Cummins spokeswoman Sarah Sullivan.

Meyer adds, "Our headquarters is in Columbus, Ind., a relatively small town. It has a real sense of community, a great place for families."

## General Mills Inc.

**IT HEAD COUNT: Approximately 600**
**CIO: Terry Brown**
**CURRENT IT PROJECTS: Develop marketing information systems for activities like the Pillsbury Bake-Off Contest; mentoring, networking and career development through Women in IS program**
**CURRENT IT OPENINGS: SAP developers, Oracle and .Net specialists, business analysts, project managers**
**BUILDING FROM THE GROUND UP:** Every two years, Minneapolis-based General Mills puts on the Pillsbury Bake-Off Contest, in which it receives thousands of recipes from people competing for a $1 million prize. The system to support that is not trivial; it has to maintain and track all those recipes and manage the travel of 100 finalists who are flown in for the final bake-off.

But Randy Pettinger, director of marketing IS, says his team of 25 won't just crank up the same old system used two years ago. "We are building a .Net front end for that," he says. "What's neat is this year we are really upgrading the technology." It will be accessible to users outside the company, such as travel agencies, he says.

> **"We focus on building a lot of tools from within. That's exciting to people.**
> **STEFANIE BALL,** GENERAL MILLS

"It's a lot of fun stuff," Pettinger says of developing the Bake-Off system and other marketing tools, which deal with things such as Nielsen ratings, the 19 Betty Crocker test kitchens, Box Tops for Education for K-8 students and the sponsorship of NASCAR racing.

But, he adds, it isn't all fun and games. General Mills looks for people with strong SAP skills and for those with Oracle, SQL and .Net skills for custom system development.

General Mills doesn't rely on consultants or outsourcing as much as many large companies, says Stefanie Ball, human resources director for IS. And, although it does use application packages, it also does a great deal of custom work. "We focus on building a lot of tools from within," she says. "That's exciting to people — the opportunity to be part of something from the ground up and be able to truly own it."

Not all IT projects at General Mills directly involve computer technology. Stacey Lovell, an SAP senior application analyst, is on the Women in IS steering committee, where she "champions the development, advancement and retention of women" in IT. "Today, 80% of the women working in IS are involved and contribute in one way, shape or form," she says.

## State Farm Insurance Cos.

**IT HEAD COUNT: 5,700**
**SYSTEMS VICE PRESIDENT: Mark Oakley**
**CURRENT IT PROJECTS: Migration and rewriting of Cobol systems to distributed Java/Unix systems using IBM Rational development tools; biggest current effort: rewriting the claims system**
**CURRENT IT OPENINGS: People skilled in Java, IBM Rational tools, Unix, IBM WebSphere, DB2; database administrators; IT architects; test specialists; analysts of complex insurance data**
**TEAM PLAYERS WANTED:** "We have tens of millions of lines of legacy Cobol and PL/1 code," says Mike Fields, lead IT architect at State Farm in Bloomington, Ill., "but we think our future architecture is in the distributed Java space." So, while a few new IT hires have skills in older technologies, most software developers need some combination of J2EE, IBM Rational, IBM WebSphere, DB2 and Unix knowledge, he says.

Like most insurance companies, State Farm has a huge quantity of data — which it maintains on IBM z/OS mainframes — so it is looking for people who can perform business intelligence analysis and other kinds of complex analytics, Fields says.

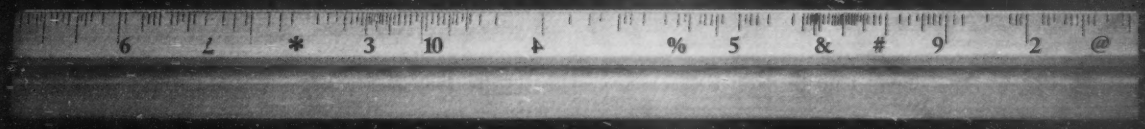
The biggest current development effort — involving "multiple hundreds of people" — is a near-total rewrite of State Farm's 15-year-old Cobol system for claims processing. "We are moving to new technology, plus adding significant business value," Fields says. For example, the new application will remove several existing constraints based on geography.

For this project, Fields says, the company is experimenting with IBM's Rational Software Modeler to generate code for user interfaces and user task logic using Unified Modeling Language. "A lot of eyes are watching that to see how it pans out," he says.

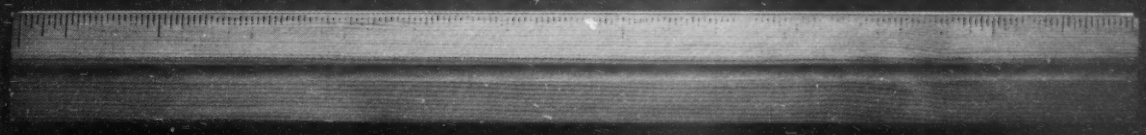
About 160 of State Farm's 200 new IT hires this year will have had some prior experience in IT, says Meta Mickens-Baker, manager of corporate IT. Those hired directly out of school will mostly be from a group of 80 students who have previously served as interns at State Farm.

While State Farm, which has 68,000 employees and 76 million insurance policies, looks for certain technical skills such as Java expertise, it already has one key skill in abundance, Fields says. "We know a lot about sizing and scaling big systems."

He says that one of the things that has kept him at State Farm for 18 years is that "we are willing to spend for the right tools and project structures and team sizes." ■



# In IT, the wrong metrics could be



# worse than no metrics at all.

Not sure how your IT investments measure up? You're not alone. Despite studies that show a critical connection between the right success metrics and higher-performing businesses, most CIOs still wrestle with measurement processes that are unreliable at best, and misleading at worst. To see how Accenture Technology Consulting can help you measure and enhance the value of IT, visit accenture.com/technology

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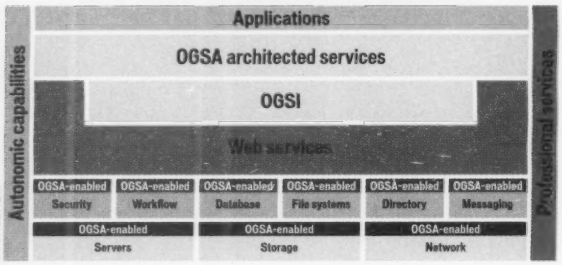
# Open Grid Services Architecture

## OGSA puts Web services and SOA on the grid. By Russell Kay

### OGSA Architecture




SOURCE: IBM

GRID COMPUTING has intrigued the IT world for years. The notion of harnessing the processing power of multiple computers — whether within an organization, supplied by volunteers or provided as a broadband, metered computing utility — is attractive and compelling, but implementing it has proved somewhat difficult. One of the more recent developments advancing this cause, OGSA extends the idea of Web services to the universe of grid computing and thereby extends and refines the concept of service-oriented architecture.

To create workable grid services, developers have had to address several important issues: how to establish identity and negotiate authentication, how to express and negotiate policy, how to find out what services are available, how to monitor service-level agreements, how to organize and manage collections of services to deliver reliable and scalable services, and how to integrate data resources into computations.

OGSA is based primarily on the technologies of Web Service Description Language (WSDL) and Simple Object Access Protocol (SOAP), an XML-based protocol for passing messages between systems over the Internet. It is "service-oriented" because it works as a series of loosely coupled, interacting services that use industry-accepted Web services standards.

For a Web service to be considered a grid service, clients must be able to easily discover, update, modify and delete information about the service and its functionality and relevant data; define how the service evolves; and ensure ongoing compatibility with other services.

### ORIGINS

OGSA began with work in the late 1990s at Argonne National Laboratory, IBM, the University of Chicago and other institutions. Today, OGSA development activities are under the direction of the Open Grid Forum (*www.ogf.org*). This community, representing more than 400 organizations worldwide, was formed by the 2006 merger of the Global Grid Forum and the Enterprise Grid Alliance.

### WHAT OGSA DOES

OGSA builds on concepts and technologies from both the grid and Web services communities, defining a uniform vocabulary and grammar for grid services. OGSA represents almost everything you can do as an instance of a grid service — that is, a transient Web service that can be located within the grid and combined dynamically with other services to form larger systems and applications.

The transience is what makes a grid service different from a Web service. Transience means the services can be activated and deactivated in a timely manner without destroying the data required for many operations.

### MECHANISMS

Using WSDL, OGSA defines a number of mechanisms required for creating and composing distributed applications from available grid services:

■ **Underlying services,** originally called Open Grid Services Infrastructure (OGSI), were intended to form the basic "plumbing" layer for OGSA. This has since been superseded by Web Service Resource Framework, a family of standardized specifications for Web services, and WS-Management, a SOAP-based protocol specification for the management of servers, devices and applications.

■ **Execution management services** can create specific "units of work" and manage them to completion. These units can be OGSA applications or legacy applications.

■ **Data services** move, access and update data resources, such as files, streams, databases and catalogs.

■ **Resource management** handles data resources, other resources on the grid and the OGSA infrastructure.

■ **Security** for authentication, identity mapping, authorization, credential conversion, auditing, secure logging and privacy.

■ **Self-management of services** include the ability of a system to configure and repair itself and optimize mechanisms for resources.

■ **Information services** can be named, discovered, logged, monitored and notified. ■

**Kay** *is a* Computerworld *contributing writer in Worcester, Mass. You can contact him at russkay@charter.net.*

### Definition

**Open Grid Services Architecture (OGSA) is a set of standards that extends Web services and service-oriented architecture to the grid computing environment. OGSA definitions and criteria describe how information is shared and distributed among the components of large, heterogeneous grid systems; they apply to hardware, platforms and software.**

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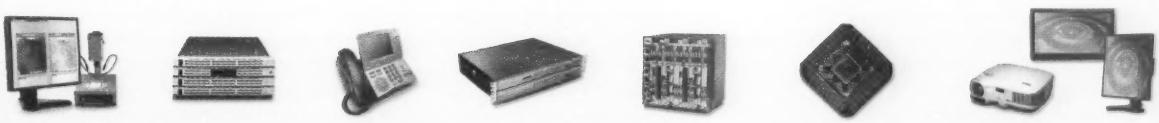

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# Wells Fargo's Free Ride

## A cooling tower outside and a heat exchanger inside are expected to save the bank $450,000 annually.

**By Robert L. Mitchell**

BOB CULVER generated $150,000 in free cooling last year by using water-side economizer technology in the air conditioning system serving Wells Fargo & Co.'s Minneapolis data center. Culver, vice president of technology information group facilities, expects to save double that amount this year and up to $450,000 annually as the bank continues to expand operations in the new, 80,000-square-foot facility. That's a 15% overall savings on energy use — not bad for an investment that added $1 million (about 1%) to total construction costs when the facility was built two years ago. "It's one of the better decisions we made," Culver says.

> **"It's one of the better decisions we made.**
>
>
>
> **BOB CULVER,** VICE PRESIDENT OF TECHNOLOGY INFORMATION GROUP FACILITIES, MINNEAPOLIS DATA CENTER, WELLS FARGO & CO.

The water-side economizer uses a combination of a cooling tower outside the building and a "shell and tube" heat exchanger inside. For about four months each year, the system can provide water that's sufficiently chilled by outside air to allow the heat exchanger to directly feed Wells Fargo's data center with cold air, bypassing the chiller (see diagram on page 40). Savings this year will come from shutting off two chillers that currently feed the data center. Culver expects to add a third chiller in the next few years as the data center expands to full capacity.

### CLIMATE MATTERS

Free cooling starts to kick in when outside temperatures hit about 55 degrees, and it can bypass the chillers when temperatures drop to about 35 degrees, says John Smith, vice president at Michaud Cooley Erickson, a Minneapolis engineering consulting firm that worked on the Wells Fargo project.

Water-side economizers are less appealing in warmer climates, however, and may not fit neatly into existing data centers. "It's somewhat expensive to retrofit," says Culver, who has looked into using the technology at Wells Fargo's other facilities.

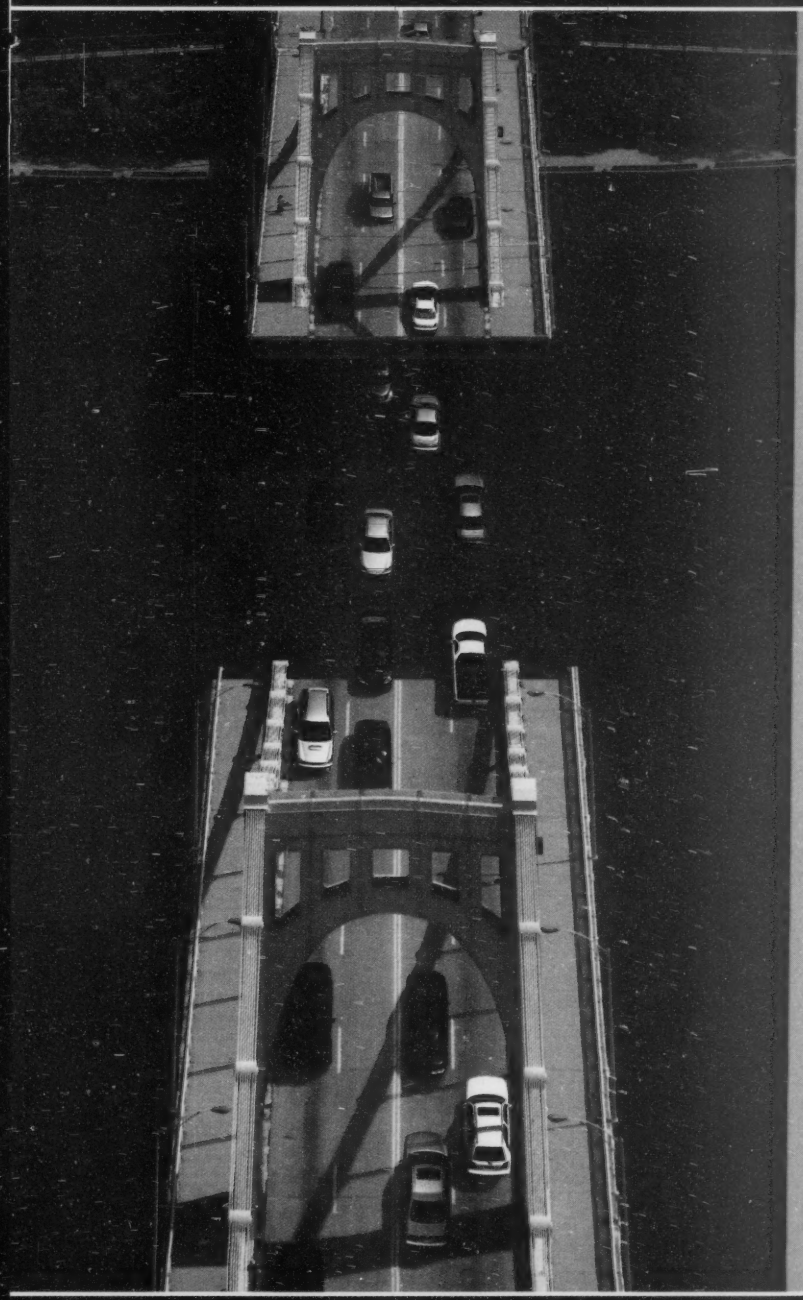
Adds Smith: "While it can be done, it does require more mechanical space to contain the equipment, which would probably be difficult to incorporate into an existing facility."

But Wells Fargo does use what's called an air-side economizer in its Roseville, Calif., facility. "An air-side economizer works well in temperatures that wouldn't be low enough to provide free cooling in a chilled-water design," Culver says. But the systems, which directly use outside air to cool a facility, aren't effective in most data centers because it takes more energy to control the humidity level of incoming air than the system saves. It's a good fit in Roseville, Culver says, because humidity control isn't an issue thanks to the moderate climate. The economizer saves energy by reducing chiller loads, and it occasionally allows one of the site's two chillers to be shut down.

In facilities north of the Mason-Dixon Line, economizer technology can save up to two-thirds of cooling system energy costs while extending the life of existing chillers, says Mark Bramfitt, principal program manager at Pacific Gas & Electric Co. Although

*Continued on page 40*

# WHEN INFORMATION AVAILABILITY MATTERS



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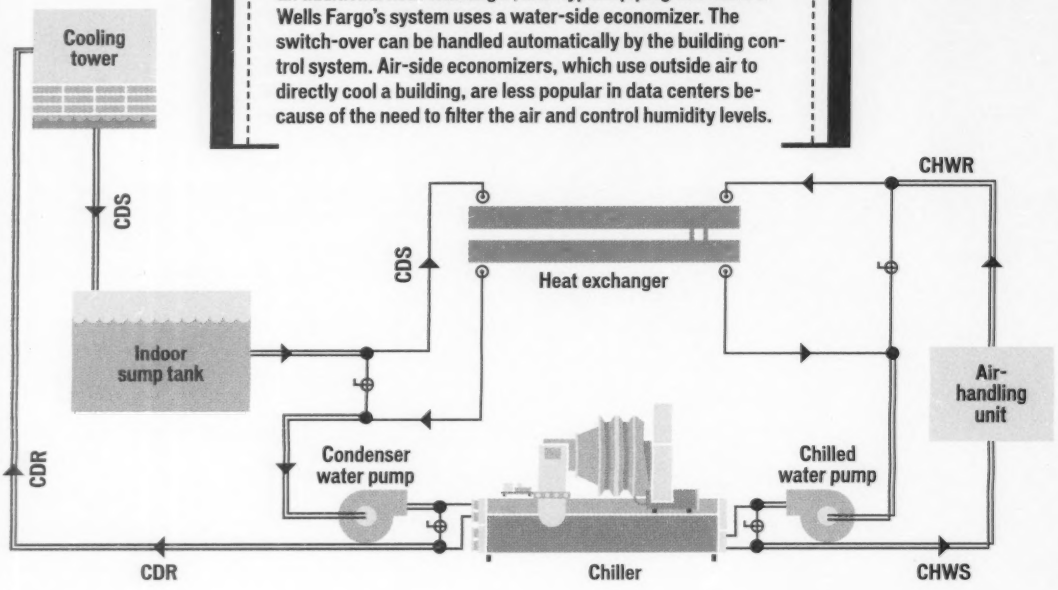
## How It Works

During winter months, a cooling tower in the air conditioning system's heat rejection loop (left side) can chill water sufficiently to bypass the chiller in Wells Fargo's Minneapolis data center. The system requires a properly sized cooling tower, an additional heat exchanger, and bypass piping and valves. Wells Fargo's system uses a water-side economizer. The switch-over can be handled automatically by the building control system. Air-side economizers, which use outside air to directly cool a building, are less popular in data centers because of the need to filter the air and control humidity levels.




■ Summertime mechanical cooling
■ Wintertime free cooling

CDS: Condenser water supply
CDR: Condenser water return
CHWS: Chilled water supply
CHWR: Chilled water return

SOURCE: MICHAUD COOLEY ERICKSON, MINNEAPOLIS

*Continued from page 38*

economizers are fairly common in commercial building designs, they haven't been used much in data centers until recently.

### A HARD SELL

Bramfitt says he meets a lot of resistance from data center managers even though PG&E will reimburse California businesses for up to half the incremental cost, allowing them to recover their costs within one year.

One company that made the move is Hewlett-Packard Co., which recently completed a 50,000-square-foot data center in Palo Alto, Calif., that includes an economizer.

"They're saving $1 million a year in power costs, and we presented them with a check for $400,000," Bramfitt says.

But despite such success stories, "I'm having a hard time convincing the industry to make it happen," he says. That's because of IT worries about availability.

"Data centers managers say, 'Let's not make this too complicated,' " says Dean Rafferty, president of Michaud Cooley Erickson.

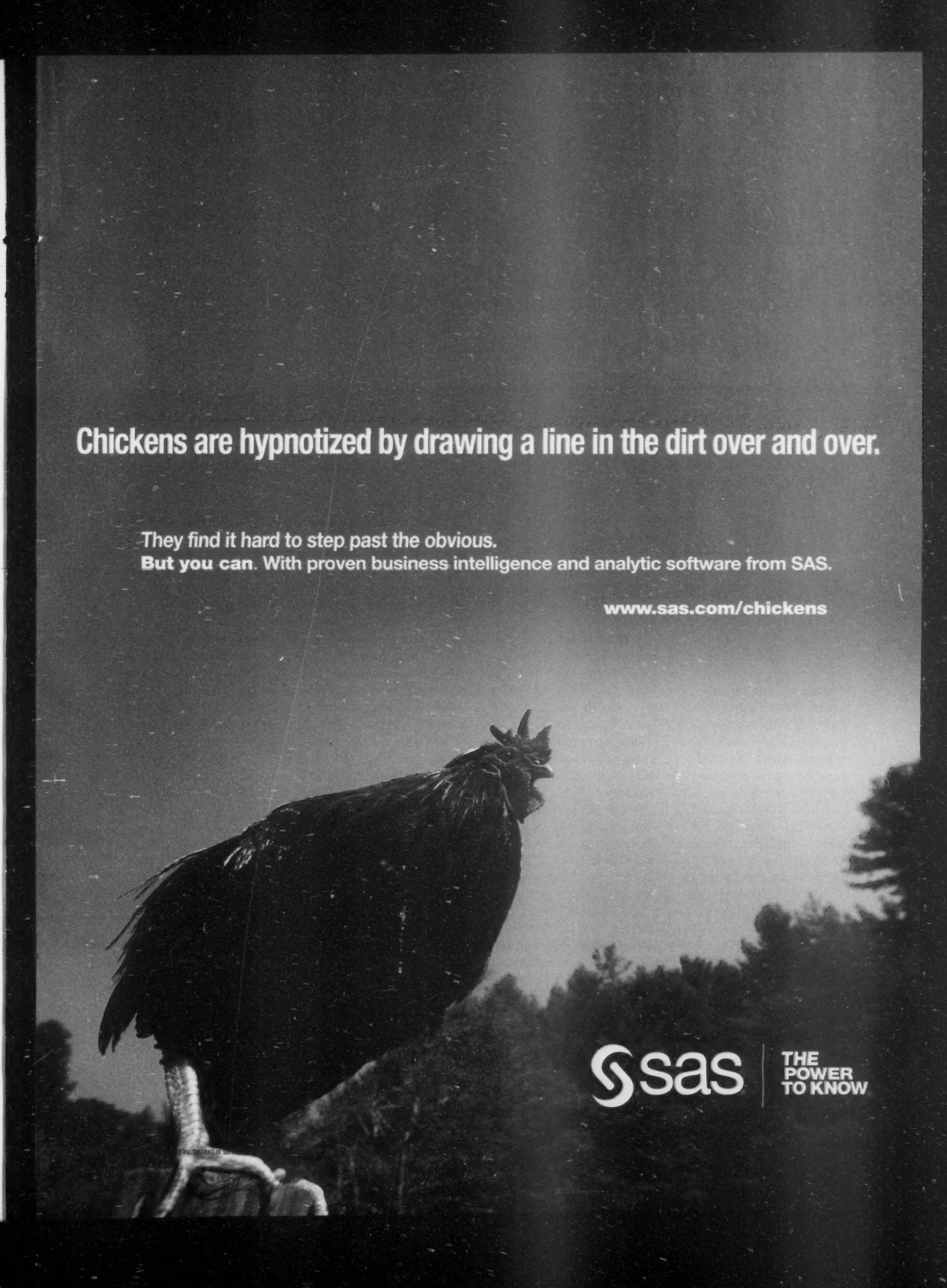
Even Culver wasn't sold on the idea at first. "We were doubting Thomases. But the engineers did a mock-up, we reviewed it and made a decision to go with it," he says.

The systems are very reliable when designed and operated properly, says Smith. "It does require the operations staff to understand its operation and knowledge of how to switch back and forth between free cooling and mechanical cooling," he says.

EYP Mission Critical Facilities Inc. CEO Peter Gross thinks the technology is already gaining critical mass in northern climates. "I would say 30% of new data centers we are building today have an economizer component," he says.

The benefits are less pronounced in warmer climates, but some companies still find them compelling. Terremark Worldwide Inc. plans to use water- and air-side economizers in the data center it's building in Culpeper, Va. "We'll see 3% savings during the colder months, when we can deploy it," says Ben Stewart, chief technology officer.

Culver says adopting free cooling requires a leap of faith. It used to be that data center costs didn't matter; IT just wanted the facilities to operate consistently, he says. "Now we're smarter. We can do these things, there's no risk to the enterprise, and we'll save energy." ■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# New Tool Pays for Itself Within Days

## He's **skeptical,** but our manager pilots a **data loss prevention** deployment — **just in time,** it turns out.

OUR intrusion-detection sensors give us about 40% coverage of our network, but we lack the manpower to pay proper attention to them. With only two network engineers — whose time is consumed with managing firewalls, the virtual private network, RSA SecurID tokens and the like — it's difficult for us to get the full benefit of those sensors, which need to be tuned to decrease false positives. They do provide meaningful information, especially when an incident occurs that prompts us to monitor network traffic more closely.

So, I've been skeptical about data loss prevention (DLP) technology, which seems to share many characteristics of an intrusion-detection system (IDS). For example, DLP technology needs to be tuned to be most effective. On the other hand, it looks deeper into network traffic than a traditional IDS and is able to detect sensitive data leaving the network.

I was skeptical when I met with representatives of Mountain View, Calif.-based Reconnex Inc. Still, its DLP product was feature-rich, and the promise that it could detect even small portions of data leaving the network was intriguing.

For that to happen, you have to first feed data to the Reconnex product. For example, if I load an entire directory of source code, it will be able to alert us should an engineer cut and paste even a small portion of it into a Yahoo e-mail message.

We decided to pilot a limited deployment of the Reconnex technology on our network.

The pilot was timely. A few days after installation, I was asked to determine whether any employees were leaking information related to an acquisition the company was contemplating. We fired up the Reconnex management console and created a rule that would flag any network traffic containing certain keywords associated with the acquisition. After a couple of days, no hits were recorded on that rule, but something else popped up that was extremely alarming.

**■ After a couple of days of monitoring, something unexpected and alarming popped up.**

When they installed the Reconnex tool, my security engineers experimented with various rules. They created one to watch for design documentation files on the network, and that's the rule that triggered the alert: An employee had uploaded a computer-aided design document to his personal Yahoo Briefcase storage account.

Not knowing much about design documents, I forwarded a copy of the file to an engineering manager, who explained that this particular document is for the design of one of the very sensitive, proprietary sensors we manufacture. It's a design that any of our competitors would love to get their hands on. As it turns out, the employee who had uploaded this document had given his notice a few days earlier. My adrenaline was rushing.

This was when, as far as I'm concerned, Reconnex paid for itself. It lets you go back and review captured network traffic. At this point, we had about a week's worth of network traffic. We created a new rule that let us see all network activity during that time related to the departing employee. Even more than before, the results were alarming. He had been using e-mail and Yahoo Briefcase to copy design documents and source code for some of our flagship products. We probably would never have known if we hadn't been piloting this product that I had been lukewarm about at the beginning.

I had the employee's desktop confiscated and contacted human resources and the legal department. I wanted this guy out of the company immediately, and I wanted our intellectual property back.

Right now, we're deciding whether to call in local law enforcement officials. I'll keep you posted. ■

*This week's journal is written by a real security manager,* **"Mathias Thurman,"** *whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com.*

### Trouble Ticket

**ISSUE:** The company's intellectual property must be safeguarded.

**ACTION PLAN:** Give data loss prevention a try, even though it seems similar to IDS technology.

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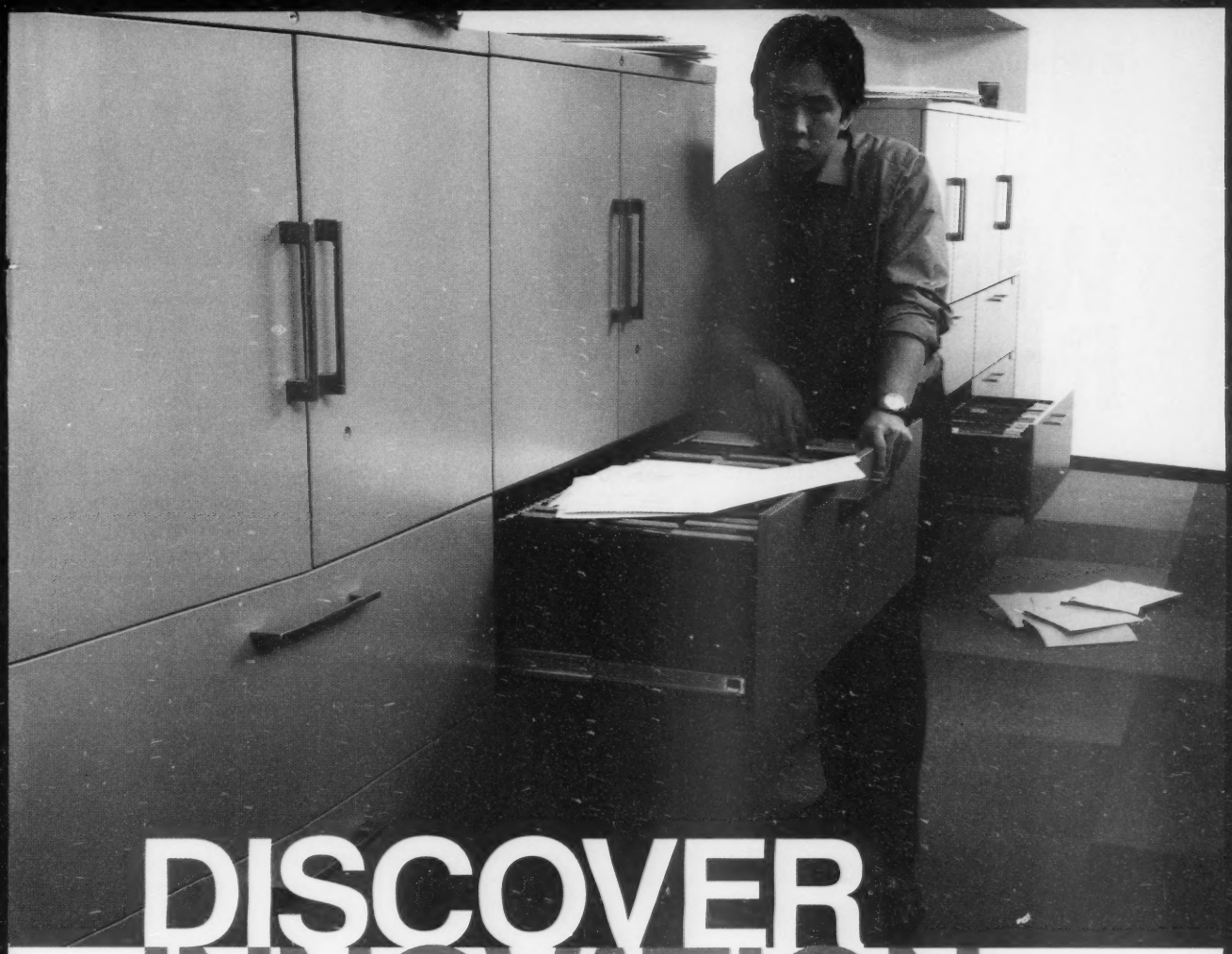

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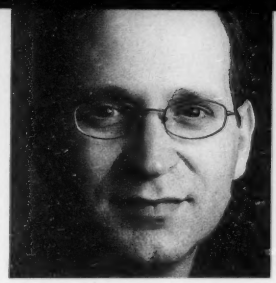
Paul Glen

# Wildfires and Rogue Users



AS I WRITE THIS, the Southern California skies over my home are brown with the smoke of more than a dozen wildfires. Luckily, none of my family and friends has been affected so far, but as many as half a million people have already been evacuated.

I must confess that I find myself filled with a familiar sense of outrage listening to the fire chiefs on the local news, because it seems that they are dealing with the same problems we in IT often face — intransigent users. Only in their case, it's more than a wasteful annoyance — it's a life-threatening emergency.

It seems that a large percentage of firefighters are not fighting the fires. Instead, they are spending their time rescuing people who refused to evacuate their homes. Firefighters are risking their lives to save those who have ignored repeated requests and demands that they leave. It seems reasonable that they would have to rescue some people — the elderly, infirm or incapacitated — but the stubborn?

Reporters interview the recently rescued and not one of them says, "No one told me to leave." They all say the same sorts of things. Each has some kind of excuse.

"I had a garden hose and was planning to save my house."

"I didn't think that it would get this bad."

"I didn't think that the evacuation order applied to me."

Does this sort of attitude sound familiar to you?

"I just didn't like the approved cell phones, so I got my own."

"I didn't think that the restriction on installing downloaded software applied to me."

"My code is so clean that I don't need QA."

What percentage of IT departmental time is devoted to rescuing the intransigent? Of course, we do need to keep in mind that in the IT context, sometimes people are just resisting policies of monumental stupidity and soul-crushing inconvenience. But how many of them stop to try to understand the purpose of a policy they want to violate before violating it?

**■ What percentage of IT departmental time is devoted to rescuing the intransigent?**

What should we do with those who blatantly ignore policy? Here are a few thoughts.

**1. Let them suffer the consequences of their actions.** While this would be the most satisfying option, I'm not sure that it's the most expedient. Imagine the news reports if the Southern California firefighters chose this approach: "I know that 30 people died, but we warned them." In IT, the equivalent might be, "We know that the payroll was all wrong, but we told them to scrub the data before delivering it to us." Probably wouldn't go over too well.

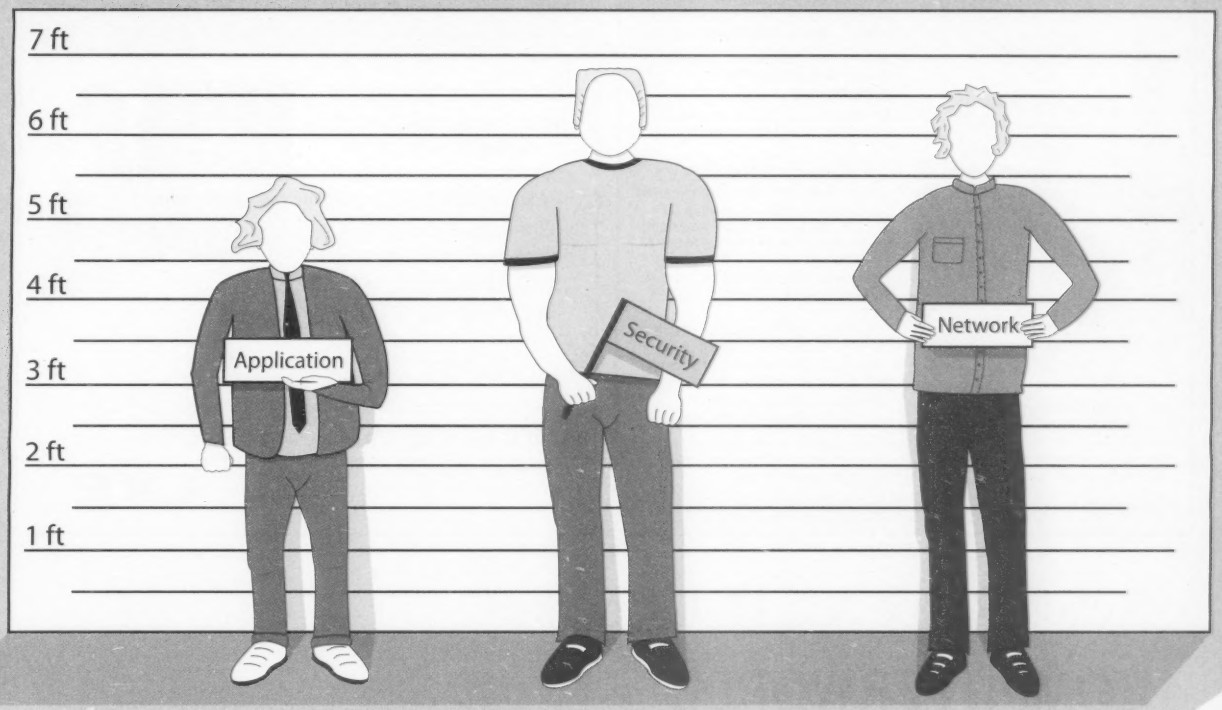
**2. Provide unlimited support, no matter how obnoxious the behavior.** This is what we usually end up doing. We in IT want to be helpful, and we usually tamp down our frustration and outrage and get on with fixing whatever problem people bring to us. Of course, by doing this, we inadvertently encourage future infractions. People learn that we will help them no matter what they do.

**3. Provide support within defined limits.** We can provide support on a work-permitting basis for unsupported items. Or we can prioritize work, providing support for rogue users only after we have completed support of those who respect the rules. If we can offer help in a way that is defined by a policy, it can help set expectations about what we will and won't do.

The intransigent will always be with us. We may as well plan how we'll respond to them before we allow ourselves to be drawn into the void of risking our work for those who don't respect the time and rules of others. ■

**Paul Glen** *is the founder of the GeekLeaders.com Web community and author of the award-winning book* Leading Geeks: How to Manage and Lead People Who Deliver Technology *(Jossey-Bass, 2003). Contact him at info@paulglen.com.*

# Line up network problems.

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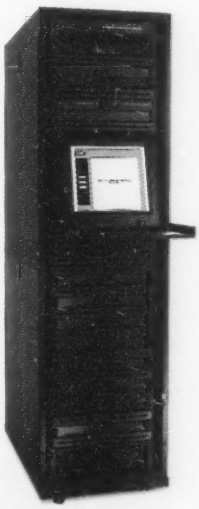

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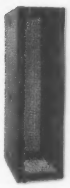

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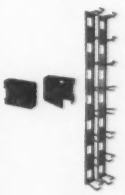

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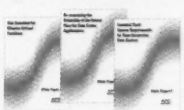

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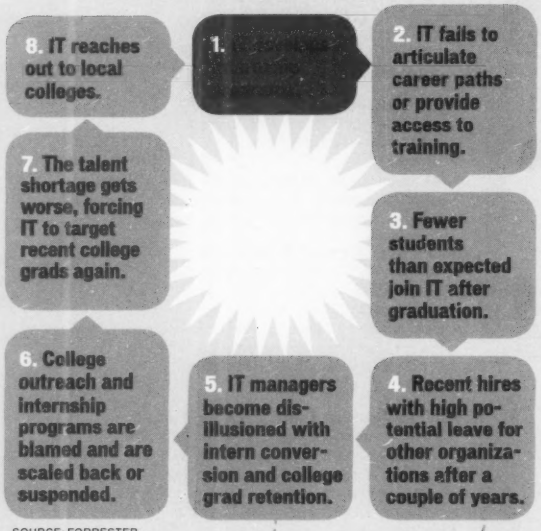
# Career Watch

## CIRCLE OF DOOM

**IT organizations' involvement in the academic sphere is a welcome development, but internship programs require follow-through and commitment. Forrester Research Inc.'s white paper "Recruiting IT Talent: Adjusting to a Hot Market" offers up this intriguing graphic, presented here with some additional comments from the report's text.**


1.
2. IT fails to articulate career paths or provide access to training.
3. Fewer students than expected join IT after graduation.
4. Recent hires with high potential leave for other organizations after a couple of years.
5. IT managers become disillusioned with intern conversion and college grad retention.
6. College outreach and internship programs are blamed and are scaled back or suspended.
7. The talent shortage gets worse, forcing IT to target recent college grads again.
8. IT reaches out to local colleges.

SOURCE: FORRESTER RESEARCH INC.

"If IT leaders do not partner with their local universities to help set expectations, college students develop inaccurate perceptions of enterprise IT that can prevent them from pursuing or persisting in IT careers," the report says. "They graduate prepared to work in areas of IT that are increasingly commoditized or find that IT organizations are not looking for those types of skills without a corresponding degree of business know-how."

Says Forrester, "A paltry 31% of interns return to the IT organizations in which they interned. Contrast this to best-practices firms, which see 70% to 80% internship conversion rates by investing in training at the outset, exposing interns to different functions in IT, and showing them career paths and milestones for advancement."

PAGE COMPILED BY JAMIE ECKLE.

**CAREER ENHANCER:**

# Negotiation

**»»» LOOK BEHIND THE POSITIONS TO THE PARTIES' NEEDS, WANTS AND CONCERNS.**

**BY LISHA WENTWORTH**

During my 27 years as a consultant, I've watched IT professionals continually lose in negotiations with clients. As a result, they are chronically understaffed, lack the right resources and often need to meet unrealistic deadlines. Rather than taking charge of this dismal situation, many seem to conclude that that's just how life is.

It doesn't have to be that way. We can succeed as IT professionals if we get past our aversion to negotiating and learn how to manage the conflict that's an inevitable part of life.

The good news is that good negotiators aren't born, they're taught. The first thing to learn is that conflict isn't something to avoid – it's a necessary component of two parties working out a difference of opinion.

Then you must learn to distinguish between the two types of negotiations: position-based vs. interest-based. Customarily in the U.S., we negotiate based on position. In other words, each party takes a stand and then moves along a continuum until both agree to agree. It takes a lot of time and energy because each party typically makes only small concessions. It can also endanger relationships because it becomes a contest of wills.

With interest-based negotiations, we define the reasons behind our stance – the needs, wants and concerns that brought us to our position. And when we understand our own interests and those of the other party, it's easier to see options.

Let's say you decide you need three months to finish a project. The client wants it in two months. Those are your positions. Your interests, however, are that you've got five other projects and have just lost a key database analyst. The client's interests are that an upcoming ad campaign is dependent on the new system. Knowing what's behind those positions, you and the client can talk about scaling back project scope, halting a lower-priority project and budgeting for a contract database analyst.

As IT professionals, we might feel new to the negotiations scene, but we're really not. We do it every day, with peers, subordinates, bosses and clients. We just have to stop avoiding it, because we *can* learn to get better at it.

***Wentworth** is a senior consultant at Ouellette & Associates Consulting Inc. in Bedford, N.H. She is also a co-author of the book* The IT Professional of the Future, *due out in early 2008.*

## MOTHERS MATURE

**Over the past 10 years, the percentage of working mothers who would prefer to work full time has dropped 11 points. Mothers with children under age 18 were asked, "Which would be the ideal situation for you?"**

| | Working mothers | | At-home mothers | |
|---|---|---|---|---|
| | 1997 | 2007 | 1997 | 2007 |
| Full-time work | 32% | 21% | 24% | 16% |
| Part-time work | 48% | 60% | 37% | 33% |
| Not working | 20% | 19% | 39% | 48% |
| Don't know | 0% | 0% | 0% | 3% |
| Sample size | 317 | 259 | 140 | 153 |

SOURCE: PEW RESEARCH CENTER, WASHINGTON, JULY 2007

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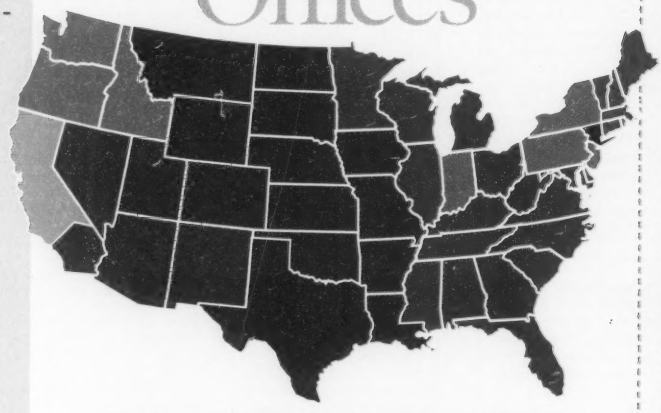

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# Shark Tank

## TRUE TALES OF IT LIFE AS TOLD TO SHARKY

### Yes, No, No . . .

Pilot fish gets an opportunity for a week of training, room and board paid for by the training company. All he needs is money for travel and approval from his boss. "I sent an e-mail to the boss asking for his approval to apply," says fish. "I received a reply in the affirmative. Then I sent another e-mail asking how to go about getting travel to said training. Travel denied. I explained that the training was free and that the room and board was free – I just needed to get there and back. I included the documentation, and I even offered to pay my own way if I could have an authorized absence for that week. Denied again. Result: Opportunity lost. Why am I leaving this job again?"

### What Else?

It's way back when, and this engineer is working on programming some warning lights and buzzers for an unloading system in a manufacturing plant. "He worked late one night, and when we came in the next morning, the lights were flashing and the buzzer was going off," says a pilot fish on the scene. "When we tried to get into the system to reset it, he had programmed a password before you could get in. We called him to find out what the password was while his manager was looking for something to stuff in the buzzer to shut it up. We finally got hold of the engineer, who seemed surprised that we didn't know that the pass code was the hexadecimal value of the square root of the decimal value of the letter D. I guess it seemed quite simple to him."

### Twofer Solution

Data entry worker regularly complains about being hot and says that her computer screen flickers when the mercury rises, too. "I respond while she's at lunch and can find no apparent problem," says a pilot fish. "CPU, hard disk, graphics card, CRT monitor – everything checks out. That's until Ms. Hottie returns from lunch, hears the bad news and cranks up the 1960s vintage fan directly next to the monitor that causes her screen image to jump around like an aerobics instructor after a double espresso."

### Rake Time

Pilot fish gets a second call from a remote user to restart her network printer after a jam. And this time, she's a little more forthcoming about what's wrong. "It seems the plant manager likes decorative plants in the office," fish reports. "In particular, there is a ficus tree that branches out above the printer. The printer jams were the result of leaves falling into the printer. The user has been unable to convince the PM to relocate the tree."

■ *Seasons may change, but one thing stays the same: Sharky still wants your true tale of IT life at sharky@computerworld.com. You'll get a sharp Shark shirt if I use it.*


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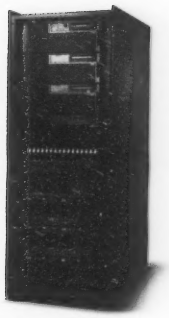
_INFRASTRUCTURE LOG

_DAY 82: There are so many risks out there. So many things that can happen to our business: natural disasters, spikes in traffic, mergers. How do we prepare? One in three companies don't recover from unplanned downtime. Would we?

_Gil has wrapped everything in the office with bubble wrap. Everything. Just to be safe.

_DAY 83: I'm preparing with IBM Business Resilience Solutions. IBM Business Continuity Services can help us assess our risks and design a proactive plan to deal with them. IBM Tivoli gives us the visibility to diagnose and fix infrastructure problems. And the robust availability features of the IBM System p™ give us maximum uptime. The future feels so much safer now.

_No more bubble wrap. And I have to mail a package. Great.



Tivoli.

Take the business continuity assessment at:
IBM.COM/**TAKEBACKCONTROL**/READY

_INFRASTRUCTURE LOG
_DAY 89: Our power and cooling costs are out of control. We spend the bulk of our IT budget just keeping the data center cool. I told Gil we need to go green in a big way.
_DAY 91: Gil took us green...kelly green, to be exact.
_DAY 93: You don't go green with paint. You go green with IBM Cool Blue™ technology and energy management services. Advanced server and storage virtualization can help consolidate our boxes to lower energy usage. And the new IBM POWER6™ systems help us use less energy doing the same amount of work.[1]
_Our data center will be green now. And painted white.
IBM
PAINT

Learn how to make your data center more efficient:
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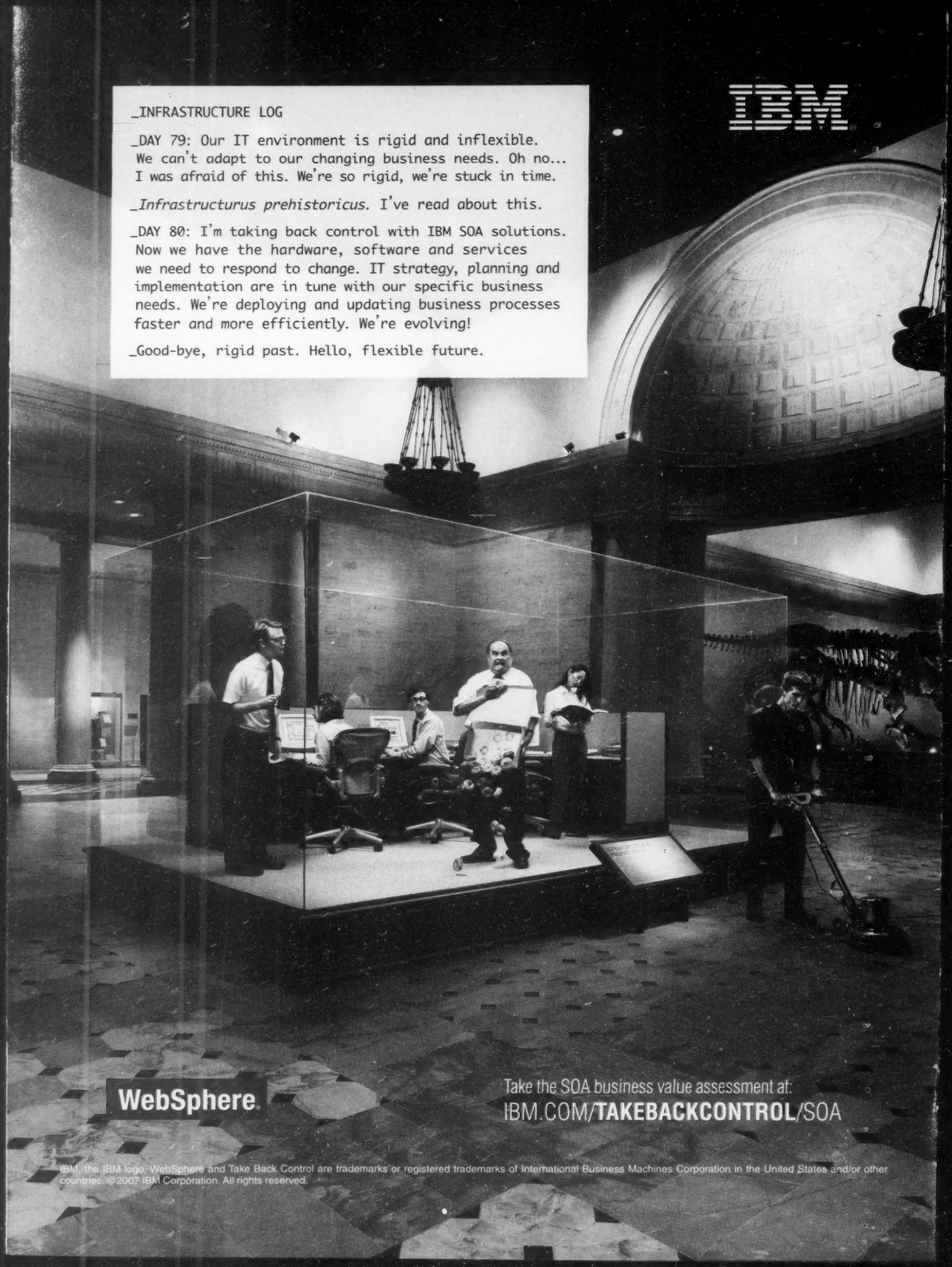
_INFRASTRUCTURE LOG
_DAY 79: Our IT environment is rigid and inflexible. We can't adapt to our changing business needs. Oh no... I was afraid of this. We're so rigid, we're stuck in time.
_*Infrastructurus prehistoricus.* I've read about this.
_DAY 80: I'm taking back control with IBM SOA solutions. Now we have the hardware, software and services we need to respond to change. IT strategy, planning and implementation are in tune with our specific business needs. We're deploying and updating business processes faster and more efficiently. We're evolving!
_Good-bye, rigid past. Hello, flexible future.
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